

LAND AND POVERTY IN THE
MIDDLE EAST

THE ROYAL INSTITUTE
OF INTERNATIONAL AFFAIRS
London: Chatham House, St James's Square, S.W.1
New York: 542 Fifth Avenue, New York 19

Toronto *Bombay*
Melbourne *Cape Town* *Wellington*
OXFORD UNIVERSITY PRESS

MIDDLE EAST ECONOMIC AND SOCIAL STUDIES

LAND AND POVERTY
IN THE
MIDDLE EAST

DOREEN WARRINER

LONDON & NEW YORK

Royal Institute of International Affairs

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First published 1948

PRINTED IN GREAT BRITAIN
AT THE BROADWATER PRESS, WELWYN GARDEN CITY
HERTFORDSHIRE

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PREFATORY NOTE

IT had been hoped that an economic survey of the Middle East would be produced after the war by some government department, but this hope seems unlikely to be realized and the Institute proposes to do what it can to fill the gap. The production of a comprehensive survey would take several years, and would moreover cost more than the Institute could afford to spend on this one project at present. It has, therefore, been decided to bring out as soon as possible a number of separate studies on various aspects of the economic and social problem in the Middle East, e.g. agriculture, transport, industry, education. These studies may vary in scope according to the material at hand and the opportunities the various writers may have enjoyed, but it is hoped that they will all constitute valuable elements in the general survey which must eventually be undertaken, and that any blanks they may reveal will provoke other writers to attempt to fill them in.

The term 'Middle East' is used in its recently acquired meaning as comprising not only the Middle East proper, but also what used to be called the Near East, viz., the Levant.

Agriculture being of the first importance in the Middle East, it is fitting that the first volume in our series should deal with that subject. Miss Warriner has been fortunate in finding a good deal of material ready to hand and in having had opportunities of studying her subject on the spot in several of the territories concerned; and it will be found that she has made good use of both.

AUTHOR'S NOTE

I should like to express my special thanks to Sir Reader Bullard and Dr Keith Murray, whose advice in the preparation of this study has been invaluable to me, and also to Mrs N. Good and Mr P. Selwyn of the research staff of Chatham House, who have done much to ensure the accuracy of the tables and text.

DOREEN WARRINER

INTRODUCTION

NEAR starvation, pestilence, high death rates, soil erosion, economic exploitation—this is the pattern of life for the mass of the rural population in the Middle East. It is a poverty which has no parallel in Europe, since even clean water is a luxury. Money incomes are low—£5 to £7 per head per year—but money comparisons alone do not convey the filth and disease, the mud-huts shared with animals, the dried dung fuel. There is no standard of living in the European sense—mere existence is accepted as the standard.

This poverty has become a familiar background in recent years, and as a result of the war in the Middle East area the question of how to raise the standard of living has emerged. In the past students of the Arab world have treated this poverty reverently as a 'way of life', as part of an Arab *mystique*, and accepted it as fatalistically as its victims do. By these experts it is believed that to talk of raising living standards is to use criteria which do not apply, and which vitiate the real values of Arab society. This is a natural attitude for those who have found in the Arab world some social values which Western civilization fails to provide, and who are concerned to preserve them. But to emphasize the squalor of life in the Middle East is not necessarily to deny that it has other qualities as well; and if we urge the need of raising the material standard of living, that does not mean that we also urge the general application of the other standards of the West. It is simply to recognize the fact that poverty is an evil in this world as in ours, and that it must be overcome, in order to realize any way of life, as distinct from a sordid struggle for existence.

Poverty is therefore a problem to which the Arab world itself cannot remain indifferent. As a result of the Jew-Arab controversy, and the impact of power politics in this region, the peoples of the Middle East have become self-conscious; their minds are prepared to question their own social institutions, and to regard their own welfare as a matter for concern. The Middle East is in a state of turmoil; it is no longer bound by tradition, and it has never, in historic times, been primitive. The question of raising

living standards through the control of environment will inevitably become a part of this national awakening.

Nor can the West remain indifferent. American and British capital is digging deeply into the oil resources of the region, and as American oil-fields become exhausted, dependence on Middle East supplies will increase. It is idle to pretend that the population of the Middle East will not be affected by this influence or that their political and economic institutions can be isolated. The influx of Western capital must cause change, and it is unlikely that the populations will remain merely passive spectators; at some point they will decide to control the development of their own resources.

Thus the poverty of the Middle East area is a matter of international interest. The war high-lighted the economic conditions of the region. Through the work of the Middle East Supply Centre (M.E.S.C.), and other governmental agencies, such as the O.C.P. (Office des Céréales Panifiables) in Syria, the starvation of the first world war was avoided. But the efforts of M.E.S.C. to raise agricultural production throughout the territories, with the object of cutting down imports, threw into sharp relief the limiting factors in the way of any large immediate increase in agricultural production. The malaria epidemic in Upper Egypt, which killed 100,000 as a result of malnutrition, emphasized the low level of the farm population. For the first time the causes of poverty in the Middle East came under scrutiny, the need for long-term measures to raise living standards was apparent. Unfortunately, the work of the M.E.S.C., which might have been developed on long-term lines, was not continued.

Political and national controversies now again dominate the scene and there is no organization which can put the economic progress of the Middle East or the security of its peasant population in the foreground.

The result is a tendency to see the Middle East, not as a poor region, with extraordinarily adverse natural conditions, in part heavily overpopulated, but as a land of promise, virtually empty and capable of vast agricultural development. Too often all the emphasis is placed on the low productivity of agriculture as due to primitive technical methods, and to 'backwardness', and consequently the whole problem is seen in terms of tech-

nical progress. But Dr Keen and the M.E.S.C. dry farming experts were less disposed to scorn shallow ploughing and other primitive practices than the economists, who too frequently tend to believe that all that is needed is to introduce 'European' methods to transform the economy.

While there is undoubtedly scope for advance in agricultural technique, to regard such change as likely to cause a great or general increase in productivity means a complete loss of perspective. It must not be forgotten that ecologically the Middle East is not, and never will be, a good grain-growing region, capable of competing in world markets with areas like south Russia, Canada, and the Argentine. Nor does irrigation really change the situation, since the costs of growing grain on irrigated land are too high in relation to costs on non-irrigated land in more favoured countries.

Again, when the prospects of development are considered, it is important to bear in mind that, empty as the deserts are, the cultivated land is densely settled already. In Egypt there is excessive pressure on the land, with a rural density about ten times that of Europe, and a population surplus of about five million. Rural population is now increasing much faster than agricultural output, and the amount of land per head of rural population is less than half an acre. In Palestine, the Arab rural population is increasing at an abnormally fast rate, and the amount of land per head of rural population amounts to some $2\frac{1}{2}$ acres. In Syria there are large regions which are definitely under-populated, and which could be developed by systematic settlement. In Iraq there are possibilities of increasing the area cultivated if water supplies were better regulated; enough perhaps to absorb all Egypt's surplus labour; but without a complete change in the land tenure system, and much investment, they can never be realized.

Thus the idea of 'absorptive capacity', which influences so much of the discussion of Middle East prospects, tends to ignore the adverse conditions of soil and climate, the low standard of the existing population, and the existing social institutions. It is greatly to the credit of the economists of the Jewish Agency, in particular to Dr Bonné, that they have assembled the economic data of the Middle East countries and analysed them from the standpoint of what additional population could be supported.

Their work represents the first analytical attempt to appraise the prospects of economic development, and as such must command respect; but by making their starting point the need for living space for immigrants they have ignored these important limiting factors.

Dr Bonné, for example, considers that it would be possible to employ some 30 million additional settlers in the Middle East on the land, by increasing the density of the rural population to the level of that of Europe.¹ He forgets that Europe has an entirely different farm system, and that in the Middle East the main factor on which European farming depends, i.e., rain, is almost entirely absent. As Dr Keen points out: 'except in areas where irrigation is possible climatic conditions rule out any system of agriculture like the one now practised in countries with a well-distributed rainfall.'² The area which could be brought under irrigation is not vast, because it is limited by water supplies. The rate of population growth is everywhere fast. Even if agricultural advance were to double the real income of the existing farm population, it would still live in great poverty.

To discuss the Middle East in terms of 'absorptive capacity' is indeed to prejudge the whole issue. The first essential is not to put more people on the land, but to raise the living standard of the population already there; not to bring in new population, but to provide better conditions of existence for the increase in population which is now occurring.

Further, it falsifies the issue because it ignores the social structure. 'The peasant,' says Dr Keen, 'is imprisoned within the walls of his own agricultural system; year by year his numbers grow and the walls remain.'³ The walls are the methods of land tenure which stand in the way of progress, wasting capital and preventing investment. Whatever improvements can be made in the Middle East, they have to be carried through by the existing population, as a result of their own desire for change.

That is why land tenure is an important subject. All the influences which make for poverty, indebtedness, ignorance, instability, are re-enforced by the social structure of the countries

¹ A. Bonné, *The Economic Development of the Middle East* (London, Kegan Paul, 1945), p. 150.

² *The Agricultural Development of the Middle East* (H.M.S.O., 1946), p. 109.

³ *ibid.*, p. 109.

INTRODUCTION

and unless this is changed there can be no real advance. If the present system of land tenure continues, there can be little hope that foreign loans, or the influx of foreign money, will contribute to any general improvement in the standard of living. It is therefore of the first importance, in considering the causes of poverty in the Middle East, and the methods of raising living standards, to examine the social structure, in particular the system of land tenure.

Chapter I
THE AGRICULTURAL BACKGROUND

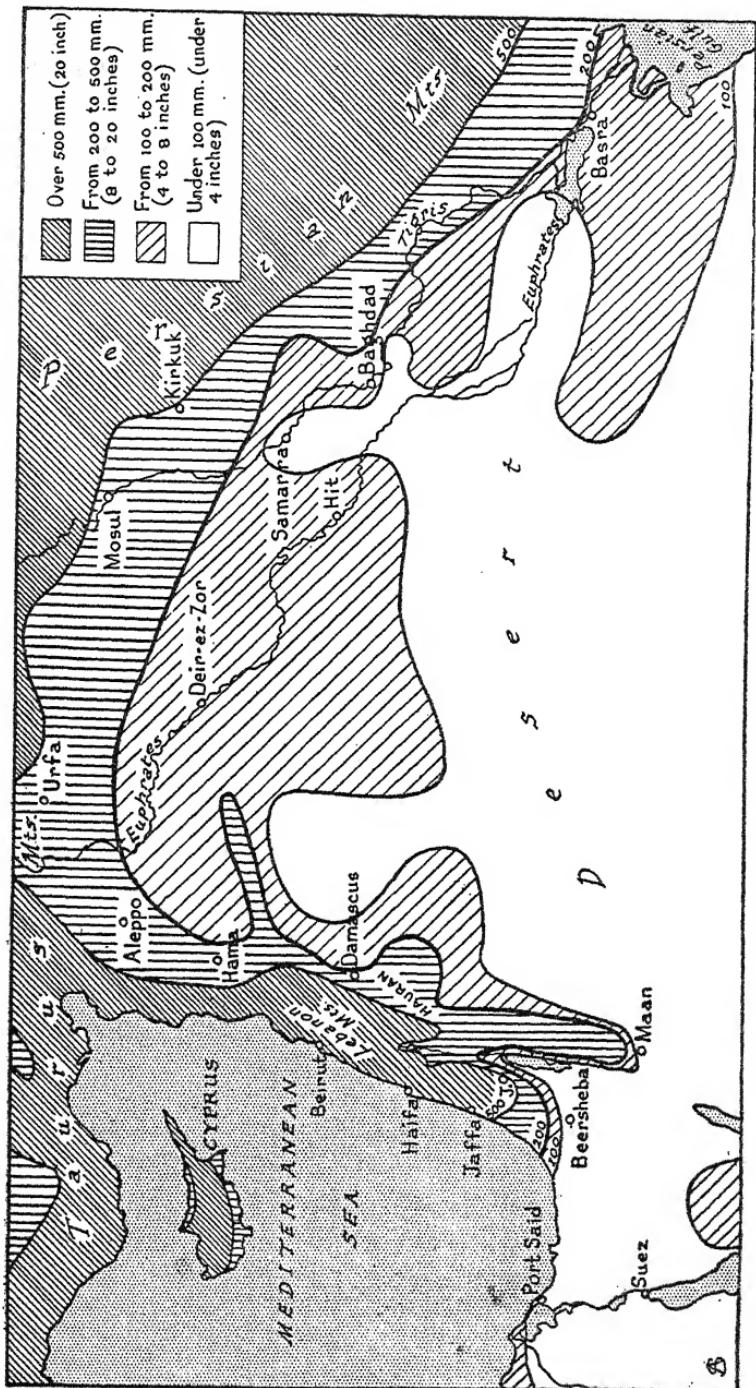
THE LAND

ONE of the great difficulties in assessing the possibilities of development in the Middle East is to obtain a clear idea of the areas of land involved. The total area of the Middle East territories under discussion, viz.: Egypt, Palestine, Transjordan, Syria and Lebanon, and Iraq, is 1,744,000 square kilometres, or 674,000 square miles.

But the greater part of the total area is desert, and only a small proportion of it is cultivated. It is extremely difficult to arrive at an estimate of the agricultural land since, except for Egypt, Palestine, and Transjordan, there are no statistics, and the figures which can be used are only rough guesses.

It is not, however, the lack of statistics alone which stands in the way of estimating the agricultural area. The real difficulty is to define the land which is used for agricultural purposes. So far as Egypt is concerned the agricultural area is clearly defined, but in the countries of the Fertile Crescent, that is, Palestine, Transjordan, Syria and Lebanon, and Iraq, the difficulty of classification arises because of the marginal area between the desert and the sown, which is not regularly cultivated. This is the desert steppe land, cultivated sporadically by semi-nomadic tribes, whose agriculture is subject to no ordinary limits of time and space.

Within the regularly cultivated area of the Fertile Crescent, there are great differences in the intensity of cultivation. Along the coastline and under the mountains, heavy rainfall permits intensive cultivation, but the rainfall declines quickly away from the coast, and a short distance inland extensive cultivation of grain begins. The Fertile Crescent is in fact a semi-circle of cultivable land round the deserts of Syria and Saudi Arabia, in which rainfall is high enough to permit arable cultivation, either because of the proximity of the sea coast or of the mountains. The 20 centimetre (or 8 inch) rainfall line marks its limits, since with less rainfall wheat cultivation is impossible; and though crops of barley



RAINFALL IN THE FERTILE CRESCENT

The 8-inch rainfall line marks the limit of regular cultivation. The 4-inch rainfall line marks the limit of the semi-desert area.

are grown in the desert border zone with only a 4-inch rainfall, they are uncertain or poor.

The cultivable land as defined by this rainfall line begins at about Beersheba in Palestine and at first is only a fringe along the coast. To the east, its limits are defined by the Hejaz railway in Transjordan, which roughly marks the boundary between the desert and the sown, up to the Syrian frontier. There the cultivable area widens to include the Hauran, and contracts back west at Damascus, which stands in its irrigated oasis, El Ghuta, on the edge of the desert. Thence northwards the area widens again, under the influence of the Anti-Lebanon mountains, and stretches eastwards from Aleppo, following the line of the Taurus mountains along the Syrian-Turkish frontier, widening southwards to cover the big region known as the Jezira, a region formerly productive but now only sparsely populated and partly cultivated. The rainfall zone continues into Iraq and ends at the edge of the alluvial plain of southern Iraq, at a line between the two rivers running from Hit to Samarra. South of this line begins the irrigated zone of Iraq, with very low rainfall, where cultivation depends on the water supplies of the Euphrates and Tigris, in whose delta the Fertile Crescent ends.

Round the Crescent rainfall declines, from west to east, away from the coast line, or from north to south away from the mountains, and the intensity of cultivation declines with it. The zone of intensive cultivation is very narrow. It covers the coastal plain of Palestine, the vale of Esdraelon, and the Lebanon, which is densely populated and intensively cultivated, using the short rivers which descend from the Mountain to the sea for small irrigation schemes.

In the regions more than 50 miles east of the coast, the types of farming are very extensive indeed. Fallow every second or third year is the usual rotation, wheat or barley being the main crop. Yields are low, between 50 and 80 kilograms per dunum (0.5 to 0.8 tons per hectare or approximately 4 to 6 hundred-weight per acre), and vary with the rainfall to a far greater extent than in Europe. In the Jezira, for instance, wheat gives a tenfold return in a good year, sevenfold in a normal year, and in a bad year only gives back the equivalent of the seed. Yields are in fact a function of a very irregular rainfall and the Fertile

THE LAND

Crescent is only fertile by comparison with the desert which it surrounds.

All round the margin of the cultivated zone are the steppe regions of still greater uncertainty, where yields may be sufficient in a good year to give some return and where there is desert grazing in spring. These are the regions for tribal grazing, used by the nomadic and semi-nomadic population. It is these marginal zones which are difficult to classify, since the area cultivated varies and the yield is very small. Hence it is desirable to use the term 'cultivated land' to refer to the land under regular cultivation, and to describe these marginal areas by some special term. In Palestine they are described as 'waste', and in Transjordan as 'land bordering the Eastern desert'.

Another difficulty in classifying the land as 'cultivated' or 'uncultivated' arises from the prevalence of fallow in the rotation. In most of the rain-fed zone the rotation is alternate wheat (or barley) and fallow. The cultivated area is therefore twice as large as the area under crops. To avoid this confusion, it seems desirable to refer to the cultivated area as the agricultural area, that is, the area utilized for agriculture, as distinct from the cropped area.

In regard to the cultivable land of Iraq, even greater difficulties of classification arise. The total cultivable area in the whole country is estimated at 30 million acres, but this figure has no practical significance since the whole of it could never be brought under cultivation at any one time owing to the limitation of water supplies: the figure really refers only to the area within which the cultivated area can move as the area irrigated changes. The area actually cropped is much smaller than this, and is only 6 million acres, of which $1\frac{1}{2}$ million is situated in the rainfall zone of the north and $4\frac{1}{2}$ million in the irrigation zone. While some extension of cultivation is possible in the rainfall zone, in the irrigation zone it could not now be much extended without large irrigation schemes. At present the total area utilized for agriculture is about 12 million acres, that is, twice the cropped area, since about half the land is fallow each year.

The following table shows the agricultural areas and the areas actually cropped. The agricultural area, as defined above, excludes the desert border land, but includes the fallow when this is part of a rotation.

THE AGRICULTURAL BACKGROUND

AGRICULTURAL AND CROP AREAS IN THE MIDDLE EAST, 1943

Territory	Total Area sq. kms.	Total Area acres	Agricultural area (acres)	Cropped area (acres)	Proportion of Agricultural area (%)
Egypt ..	1,020,000	252,000,000	5,364,000	8,437,000	2.13
Palestine ..	27,000	6,680,000	2,160,000	1,930,000	32.4
Transjordan ..	90,000	22,100,000	1,250,000	600,000	5.7
Syria and Lebanon	155,000	38,400,000	5,800,000	3,970,000	15.1
Iraq ..	452,000	111,500,000	12,000,000	6,000,000	10.8
TOTAL ..	1,744,000	430,680,000	26,574,000	20,937,000	6.15

Thus the agricultural area of these five countries, according to these rough estimates, is some twenty-six million acres, and so is smaller than the agricultural area of England and Wales. Of this about one third is irrigated, including 5 million acres in Egypt, 4.5 million in Iraq, and about half a million acres in Syria and the Lebanon. The rest is cultivated very extensively indeed, with as much as half the land fallow. With the exception of Egypt, where cultivation is highly intensive, the land resources of the territories are wastefully used. Soil erosion is a major danger in Palestine, Transjordan, and Syria. Syria wastes its water, while in Iraq the fertility of the soil is being destroyed by shifting cultivation as the land becomes saline for lack of proper drainage. Nowhere in the world is there greater need for planning the use of land.

POPULATION

The land areas having been reviewed, the numbers on the land must be estimated. Here, too, there are great difficulties since no country in the Middle East, except Egypt, publishes figures of the population dependent on agriculture. Palestine can provide reliable figures of rural population, but for Iraq and Syria even this figure can only be estimated.

POPULATION IN THE MIDDLE EAST, 1943-4

	Total	Rural Settled
Egypt (1943) ¹ ..	17,387,852	12,000,000
Palestine (1944) ..	1,673,000	872,090
Transjordan (1943)	400,000	300,000
Syria and Lebanon (1943-4)	3,987,012	2,800,000
Iraq (1943) ..	4,501,000	3,500,000
	27,948,864	19,472,090

¹ See Chapter III, p. 26.

POPULATION

With a total population of some 28 million, of which 19½ million are living in rural conditions, it may be estimated that the population dependent on agriculture is about 17-18 million. With the present cropped area of some 20 million acres, it appears that the average rural density is high, amounting to only one acre per head of cropped land. However, an average for the total area is misleading, since Egypt's high density outweighs all the others, and great congestion in the Nile Valley outweighs the more sparsely settled Fertile Crescent.

The rate of population growth is very fast in Egypt and Palestine (1 per cent and 3 per cent per annum) and probably also in Syria and Iraq. Though population statistics are not available for the last two countries, there seems no reason to doubt that population is increasing at a rapid rate, and that the greater part of this increase adds to the population dependent on agriculture.

LOW PRODUCTIVITY

From the standpoint of world trade, the Middle East is not important as an agricultural producing region, except for cotton, citrus fruit, and dates. Its cereal production accounts for less than 2 per cent of world production. So far as cereals are concerned the territories covered by this study are self-supporting. Before 1939 Iraq had an export surplus of some 300,000 tons of grain, and Syria an export surplus of some 80,000 tons. Palestine imported about one-third of its grain, or 100,000 tons on an average, from Transjordan and from Syria. Syria also supplied Lebanon, which is a deficit area for grain. For sugar, this region is a deficit area. Egypt supplies the bulk of the requirements of Syria and Palestine, and part of the needs of Iraq, which imports the rest of its requirements from the Dutch East Indies and the Congo. In oils and fats these territories are self-sufficient; Egypt exports part of its cotton-seed oil surplus to Palestine, and Syria most of its olive oil surplus to Iraq.

All the main export crops are marketed outside Middle East territories. Cotton, which represents 80 per cent of Egypt's exports, went to America and Europe; so also did Palestine citrus, which accounted for 65 per cent of its exports, and Iraqi dates.

The following table shows the percentage of world output of various crops produced in these five countries.

THE AGRICULTURAL BACKGROUND

THE SHARE OF THE MIDDLE EAST IN WORLD AGRICULTURAL OUTPUT

<i>Crop</i>	<i>Year</i>	<i>World Production</i> (ooo tons)	<i>Middle East Production</i> (ooo tons)	<i>M.E. Production as % of World Production</i>
Wheat	1938	165,100	2,625	1.59
Barley	1938	42,510	1,866	4.39
Maize	1938	115,700	1,606	1.39
Rice	1938-9	92,230	1,088	1.18
Sugar-cane	1937-8	177,000	2,384	1.35
Grapes	1938	35,500	290	0.82
Citrus fruit	1938-9	9,820	884	9.00
Cotton (seed)	1940-1	13,670	766	5.61
Cotton (ginned)	1940-1	6,700	422	6.30
Dates ¹	1938	245	186	75.92
Tobacco	1938	2,087 ²	8 6	0.41

¹ Date statistics refer to exports only.

² Not including U.S.S.R.

To reach satisfactory estimates of incomes in agriculture in relation to incomes in agriculture in other countries is difficult, in view of the absence of statistics of occupations. But as a broad indication of the low level of productivity, the output per head of the chief grain crops may be taken, since the greater part of the farm income is derived from grain, and the special crops such as cotton, citrus, and dates are highly localized. Total grain production only amounts to 6 million tons, produced by a farm population of some 18 million; average output per head amounts to about one-third of a ton, as compared with an average output of 2 tons per head in Western Europe, and 1 ton per head in the countries of Eastern Europe. Thus the level of output per man is very low indeed.

Though there are great differences in farming systems, there is little difference between the countries in the level of output per head, as the following table shows.

	<i>Settled Rural Population</i>	<i>Total Cereal Production</i> (metric tons)	<i>Cereal production per head of rural settled population</i> (metric tons)
Egypt (1939)	c.12,000,000	3,984,000	.33
Palestine (1942)	878,400	280,264	.32
Transjordan (1943)	c.300,000	161,350	.54
Syria and Lebanon (1938)	c.2,700,000	966,500	.36
Iraq (1942)	c.3,500,000	1,350,000	.39
TOTAL	19,378,400	6,742,114	.35

This low level of output per head is due to several causes: in Palestine to low yields; in Syria to extensive cultivation; and in

Egypt to the excessive density of rural population on the land. Yields vary considerably, being very high in Egypt on irrigated land, and very low in Palestine and Iraq, but the higher yields in Egypt are offset by the greater density of the rural population, and in spite of the far greater intensity of the farming system, the farm population lives in poverty as great as that of the other countries where the land is less overcrowded. The following table shows average pre-war yields per acre; there has been little change since then which would affect the general picture.

PRE-WAR YIELDS OF CEREAL CROPS, 1934-8
(*Cwt per Acre*)

	<i>Wheat</i>	<i>Maize</i>	<i>Barley</i>	<i>Rice</i>
Egypt .	17.0	19.5	15.4	27.8
Palestine .	3.4	8.2	3.0	—
Syria and Lebanon	7.6	10.0	8.4	22.5
Iraq ..	5.6	—	5.7	10.5

A low level of output per head is characteristic of all these countries, whatever the farming system.

Thus the rapid increase of population, the low level of output per head, and the wasteful use of land all make it imperative to plan the agricultural development of the region, in order to increase yields per acre and per head, and improve the utilization of land resources.

Chapter II

FORMS OF LAND TENURE

LARGE AND SMALL OWNERS

WITH the exception of Egypt, no country in the Middle East has published statistics of landownership or sizes of farms. It is not known, therefore, how much of the total land is owned by large landowners and how much by small peasants. Much information on landownership has been collected in recent years in the course of registration of title to land, but it has unfortunately never been classified or published. So far as Palestine is concerned, there is some justifiable fear on the part of the government authorities that too much investigation of land tenure will alarm the Arab population with the idea that their rights are being threatened. But this obstacle might be overcome if inquiries were carried out by Arab statisticians, as is proved by the recent investigation into five Arab villages, carried out by a government statistician, Mr Dajani, in 1944-5.¹ Some other sample investigations have recently been carried out in Syria, Iraq, and Iran, on the suggestion of the M.E.S.C.; these indicate that investigation by qualified people would not cause political trouble, pending the more systematic inquiry which it is to be hoped will one day be undertaken. For the moment it is these inquiries which are the main source of information, in the absence of general data.

So far as Egypt is concerned, the position is clear. About half the land is owned by large proprietors, who are also large farmers, and employ at least half the farm population as labourers; the remainder are peasant cultivators, the majority with dwarf holdings under one acre.

In Palestine rather less than half the cultivated land is owned by small proprietors, one-third by large landowners, and one-quarter by the Jewish community. Though there is inequality within the peasant-owner class, there is not the vast discrepancy between sizes of farm holdings that there is elsewhere, and though there is a class of landless labourers, it certainly does not form as large a

¹ *Palestine General Monthly Bulletin of Current Statistics*, July, August, September, December 1945, January-March, October, 1946.

proportion of the population as it does in Egypt. Indeed, the rural social structure of Palestine, Transjordan, and also of Lebanon, in many ways resembles that of the Balkan countries in Europe.

In Syria, by contrast, the rural scene is dominated by that special phenomenon of the Middle East, the 'city notable', an absentee landlord whose main function is to provide credit and who does not interest himself at all in farming. More than half of the land, sometimes in groups of scores of villages, is owned by this class, and by the descendants of the leading military families of Ottoman times who merge with it. Sample investigations for two villages in Syria show that in each the landlords own a large proportion of the land; that there is a fairly large class of medium peasant owners, and a large class of landless or sub-landed peasants.

In Iraq, the picture is confused and changing. While small proprietors own some proportion of the land in the northern rain-fed zone, in the south it is the large sheikhs and the notables who predominate, and employ the bulk of the population as share tenants on very onerous terms. Here their grip on the land has been greatly extended in quite recent times by the increase of pump irrigation, and the city notables have become landowners by lending capital at extortionate rates to enable cultivators to install pumps.

THE LEGAL BASIS OF THE LAND SYSTEM

In all these countries, except Egypt, there is no legal basis for the methods of land tenure which are actually practised. In Egypt the land system was built up on the basis of Ottoman Law by the reforms of Mahomet Ali, and the present system is one of complete individualism. In the other countries, at the time that the mandatory Powers took over the government, there was complete chaos in regard to the ownership of land, because the existing code of Ottoman Law had not even succeeded in establishing the legal title of the occupiers.

This situation had arisen because the Ottoman Land Code, promulgated in 1858, never succeeded in enforcing general registration of individual title to land, partly on account of the well-known defects of administration in Ottoman times; and partly because individual title was unsuited to the type of semi-collective village organization which then prevailed.

The main feature of the Ottoman Land Code is its division of land into different categories. These are:

1. *Mulk Land*: land held in absolute freehold ownership. It is governed by the provisions of sacred law and not by those of the civil statute law. Landownership comprises two rights: the *raqaba*, or right of absolute ownership, and the *tasarruf*, or right to the usufruct of land. In *mulk* tenure both rights belong to the individual.
2. *Miri Land*: land of which the *raqaba* or absolute ownership belongs to the State, but the usufruct or *tasarruf* to the individual. It is a form of heritable leasehold ownership in which the State leases land to the individual.
3. *Waqf Land*: land dedicated to some pious purpose; except in Egypt, it is no longer important.
4. *Matruka Land*: land reserved for some public purpose as, for example, village threshing floors; also very small in extent.
5. *Mawat Land*: dead or unreclaimed land.

In actual practice these classifications have little significance. *Mulk* and *miri*, the two main categories, come to much the same thing so far as the use of the land is concerned. The owner of land on *miri* tenure, in theory a tenant of the State, is in much the same actual position as the owner on *mulk* tenure, since (except in Iraq) he pays no rent to the State and his title can be inherited by his legal heirs; he can also sell the land. There are no restrictions on the way the land is farmed, with the one exception that if *miri* land is left uncultivated for five years the owner's title lapses, but even this provision is usually not enforced.

Thus *miri* tenure, though in theory a type of leasehold, does not correspond at all to leasehold as we understand it. The large landlords, whether *mulk* or *miri* owners, as a rule let their land to small share-tenants, but these tenants do not hold their land on *miri* title or indeed on any form of legal contract at all. Share-tenancies, which are by far the most widespread form of tenure, and affect the majority of cultivators very closely, are not covered by these legal categories. Tenancy agreements of this kind are regulated only by custom and the actual share taken is established by 'economic law', that is, by pressure of population; where cultivators are scarce, the landlord's share is less

than where they are plentiful. Under these crop-sharing agreements, the tenants possess no lease, and no security of tenure, since they usually run only for a year. Thus the main deficiency of the Ottoman Land Code was that it made no provision to secure the position of the share-tenant.

This is not surprising, because the main purpose of the Ottoman Code was not to help the cultivator, but to establish a claim to revenue by the government. In order to tax every piece of land, it was necessary to establish its ownership. The State's claim that it owned all the land really only meant that the State did not recognize ownership unless the title were registered and the land therefore taxable.

In general the practice was to grant title directly to the cultivator, and to prevent any intermediary between the government and the small individual owner. Hence the theory that the legal ownership of *miri* land belongs to the State, and that title can only be granted to the usufruct of land, was an attempt to centralize the power of the administration against the feudal or tribal forms in existence. The object was to establish a form of individual ownership as against the tribal sheikhs. There are of course instances of large estates which have arisen from direct grant of *mulk* land by Turkish sultans to their political supporters; there are also estates which have arisen from the farming out of taxes under the Ottoman regime, but to establish these was not the general intention of the law. The Turks wanted to create a strong central government over a large number of small cultivators, in order to be able to extract the maximum revenue from the land. They therefore opposed the rule of the sheikhs, because their tribal power was a threat to the central government.

Consequently the Ottoman Land Code was also opposed to the recognition of any type of collective ownership. Article 8 of the Land Code states that: 'The whole land of a village or of a town cannot be granted in its entirety to all of the inhabitants nor to one or two persons chosen from amongst them. Separate pieces are granted to each inhabitant and a title is given to each showing this right of possession.'

In actual fact this provision was evaded, owing to the failure of the administration to register land title systematically. No general registration was ever carried out. At the same time as

the Ottoman Government introduced compulsory registration of title in 1858, it also carried out a census. While in theory this census established title to individual holdings of land by registering a claim under the name of the occupying owner, in fact the titles as they were then established did not correspond at all to reality. The villagers, fearing that the registration was a preliminary to call up for military service, or for taxation purposes, falsified the returns, registering the property either in the name of the head of the tribe, or in the name of a member of the family who could not be liable for military service. In practice they disregarded the titles which were granted (known as the *Senet-Tapu*) and continued to farm in various semi-tribal ways. Thus complete confusion resulted, since there arose one situation established by law under which certain owners held titles to divided land, and a situation existing in fact, in which the persons cultivating the land had claims recognized by custom or presumptive right, which were not enforceable by law.

THE CONFLICT OF LAW AND CUSTOM

The actual forms of social organization which then existed varied, but everywhere had some communal features.

Among the Arabs, so far as they are a nomad people, the idea prevails that land lies outside commercial transactions. Private property is recognized for livestock, tents, and personal possessions, but land, since it is available only temporarily and is extensively cultivated till exhausted, is regarded as the property of the tribe, as grazing grounds are still regarded in Palestine and Transjordan.¹

In Iraq, until quite recent times, this conception was still the basis of the land system. The tribe as a whole exercised a customary right of ownership over a large area, the tribal *dirah*. Within it, land was allocated temporarily among the clans by the sheikh, and among the members of the clan by the chief of the clan, subject to various provisions to secure its remaining in the tribe. From time to time the area of cultivation shifted, and new land was cultivated, and then re-allocated among the tribesmen.

¹ See Jacques Weulersse, *Paysans de Syrie et du Proche-Orient* (Paris, Gallimard, 1946), p. 66. 'Par un paradoxe qui paraîtra monstrueux à nos esprits occidentaux, l'Orient montre ainsi des populations paysannes dépourvues d'atavisme paysan; des terriers qui n'ont ni sens ni respect de la terre, des agriculteurs qui méprisent la culture, des laboureurs qui ont le dégoût de la charrue et des villageois qui renient le village pour rester fidèles à la tribu.'

This system has now almost entirely disintegrated, and the tribesmen are being reduced to the position of share-tenants with the sheikh as landowner.

A similar communal form still lingers in the more remote parts of Syria, in the poor villages of the Alawis, and among the Beduin settled in the districts of Hauran and Palmyra. The land of the village is divided each year among all the families of the village in proportion to the numbers of male inhabitants; when an individual dies or leaves the village his rights revert to the community, and when a new child is born he automatically acquires a share in the family's right to land.

In Palestine, Transjordan, and Syria still another form of semi-collective ownership exists, known as *mushaa* (Arabic *shared*) which is the custom of re-allotting land in unequal shares, to which a customary right of ownership attaches. When the tribe settled originally, the arable land of each village was allotted between members equally, each member owning a piece of land in different zones of the village; to maintain equality between the members, the land was re-allocated at intervals. In the course of time as a result of inter-marriage the shares held by each family became unequal, but the custom of periodic re-allotment still continued, usually at intervals of three years, after each crop rotation period. As a result each member of the village owns a share of the total land in the sense of a claim to a fraction of the total, not to a specific area, and he holds it in scattered strips over the village area, which he inter-changes for others of equivalent area, every two or three years. (See pp. 66-7.)

This system has great disadvantages from the standpoint of developing any genuine individualistic farming; the individual cultivator is discouraged from manuring the land, or undertaking any long-term improvement, such as terracing against erosion. It can only continue so long as very extensive grain cultivation prevails. In the last generation it has been disappearing rapidly, and now only continues on a small part, at most 20 per cent of the area. Settlement of title has hastened its disappearance in Palestine, Transjordan, and Syria, and it has generally been condemned by investigating experts. For instance the Johnson-Crosbie Report states, 'The system misses the advantage alike of individualism and of co-operation. While it remains, it is useless to expect that any land will be

weeded or fertilized, that trees will be planted, or, in a word, that any development will take place.¹

While this condemnation of *mushaa* is quite just, it applies almost equally well to the system of cultivation which follows the lapse of the periodical re-allotment of land. When this custom ceases, the cultivator's land still remains scattered in small strips over the area of the village, and it is this fragmentation of holdings which is the great hindrance to advance. The system is still neither fully individual nor fully collective. According to M. Durrafourd (the former Director of the Land Survey Office in Syria and Lebanon) the fragmentation of holdings means a loss of about 30 per cent in efficiency—10 per cent due to loss of time, in moving about between the different strips, 10 per cent due to loss of land, and 10 per cent due to excessive seeding.

From the standpoint of planning large-scale development it would be of course very desirable to keep the communal basis of landownership to permit the joint or collective cultivation of large areas. In Europe it is difficult to overcome the peasants' deeply ingrained traditional individualism; but in the Arab world there is no such tradition; on the contrary, tradition is all communal. To allow the communal form to break up into a large number of very small fragmented holdings means that the prospect of large-scale operations recedes. But, in practice, it would be difficult to preserve the communal tradition for the purpose of introducing any form of collective cultivation by keeping on the *mushaa* custom. Once a *mushaa* village has reached saturation point owing to the growth of the number of owners, the conflicts between the villagers prevent any agreement between producers, and it would be impossible to make any transition to a more complete communal organization from this form. If communal types of organization are to be developed they will need to make a new start through a co-operative movement.

LAND POLICY UNDER THE MANDATES

Thus, when the mandatory Powers took over the governments of the territories of the Fertile Crescent after the first

¹ W. J. Johnson and R. E. H. Crosbie, *Report on the Economic Conditions of Agriculturists in Palestine* (Jerusalem, 1932), p. 45.

world war, the land system was a muddled network of semi-communal institutions, with no settled title to land, and in Syria and Iraq with a powerful money-lender landlord class. The first reform which they had to undertake was the establishment of legal title.

This has generally led to the lapse of the *mushaa* system. In Palestine, the custom of re-allotment had to a great extent already lapsed, and land settlement has in the main registered title to individual holdings which already existed before registration. In Transjordan settlement of title has been carried out both in *mushaa* and *mafruz* (divided) villages, but mainly in the former, and is invariably accompanied by a division of the land of the villages into individual holdings, and the abolition of *mushaa*. In Syria, the Survey Office has adopted the contrary practice, and registers title to *mushaa* quotas, not to individual holdings, unless these already exist or unless there is a marked demand for it. But *mushaa* is no longer a major problem, since it has largely lapsed of itself. So far as individual title to land can be regarded as the desirable objective, these three countries now have a satisfactory system, and the Governments have successfully removed much of the confusion resulting from the Ottoman Code.

But in Iraq muddle still dominates, and the subject of Iraq land tenure is one which has led many observers to fear the loss of their sanity. 'Much can be done,' writes a former British official in Iraq, 'by industriously reading such few general surveys of the land question as have been published. These are interesting, and are usually the work of Englishmen frantically attempting in their struggle through the undergrowth to draw some rough plan of the forest . . . As I progress through these documents I seem to be climbing up into clearer air and to be steadily leaving behind me the confused world of realities . . . Lands, you read, were to be duly registered under their respective title within a specified period, on pain of certain penalties. Now you would know where you were. You are slightly annoyed to find on the next page that this pronouncement was subsequently amended to a considerable extent, and that the general policy was thereby rendered only half operative, and when you read on the following page that the amendment has in its turn been subjected to modification and drastically

qualified, you begin to wonder whether the confusion which is spreading aloft is not soon going to rival that existing below.¹

The simple truth which seems to emerge both from the documents and the confused world of realities is that the sheikhs and city notables have profited by the muddle to establish a legal title to individual ownership of tribal areas, and that the tribesmen are becoming labourers or tenants. The British advisory officials, though they attempted to provide a coherent legal framework, were not able to provide any safeguard against this result. Land settlement in Iraq has been a failure, in that it has not rationalized existing conditions, and has consolidated the power of the landlords by giving it a legal basis.

In this respect all the mandatory Governments clearly failed: none of them were able to restrain the power of the landlords. In Palestine and Transjordan, landlords are a minor problem, but in Syria and Iraq they are the key to the exploitation of the peasants. The origin of their power is tribal tradition, but it has its strongest roots in the instability of crop yields in arid countries. So long as collective types of ownership and semi-nomadic forms prevailed, cultivators had some security, but with settled cultivation and a market economy, the individual cultivator is now exposed to excessive risks, and resorts to borrowing. While rural indebtedness is a problem in all Eastern countries, in the Arab world it assumes extraordinary dimensions. The Prophet forbade usury, and as a result in an agreement between borrower and lender there is no mention of interest; the debt is merely written down as greater than it is, and the actual rate is monstrous. The all-pervading network of indebtedness reflects the utter hopelessness of individual farming without capital; it reflects too the Arab attitude to money—its 'hideous servitude to the present'.

As a result of the impossibility of ever repaying debts, a large proportion of the cultivators have been forced to sell their holdings to wealthy merchants in the towns, and to continue to exist as share-tenants. This process has gone very far in Syria and Iraq.

The landlords who have acquired land in this way are rarely farmers and may not even visit the villages they own. In Deir-ez-Zor, for example, on the Euphrates, one family owns

¹ A. D. Macdonald, *Euphrates Exile* (London, Bell, 1936), pp. 130-2.

thirty-two villages. Ownership in no way affects the method of cultivation; in a landowner's village the peasants continue their strip cultivation, even sometimes on the *mushaa* system, without in any way changing their methods, or working under direction; landownership is a credit operation, nothing more. It is this type of tenure which is the main barrier to progress, since a very large proportion of income is wasted by the landlord's unproductive expenditure.

The impact of the West has done nothing to lessen this evil, but on the contrary has increased it. Although State-owned or subsidized land banks have been established in Egypt, Syria, and Iraq, neither they nor the credit co-operatives have touched the fringe of the problem of rural indebtedness. The mandatory Powers in Syria and Iraq were obliged to rely on the power of the landlords and sheikhs to a greater extent than the Ottoman Government did. So far as the registration of title is concerned, the mandatory Powers certainly improved on the old chaotic system, but in following the Ottoman Code by giving precedence to the establishment of individual ownership, they neglected the real functions which a land-tenure code should fulfil, that is, to give security to the tenants, prevent exploitation, and stimulate investment in the land.

Again, they failed to provide any general framework for agricultural development. In none of the four countries of the Fertile Crescent is there any satisfactory regulation of water rights, or any planned irrigation development. In a region where progress in agriculture depends almost entirely on irrigation, simple individual ownership will never be a sufficient basis for development. Irrigation works must be planned by the State, and new forms of tenure developed in connection with them, which will give the fellah greater security.

But such economic changes would be quite beyond the powers of a mandatory form of government. They would need, in the first place, a new apparatus of government and an honest and a reasonably competent bureaucracy; they would in fact require an entirely different conception of the State. They would need, too, a real desire for better living on the part of the peasants, and this does not exist either, though it is coming into being. A mandatory Power could not introduce such fundamental changes from above, and it was not surprising

that Britain and France should rely mainly on the ruling class, however corrupt and oppressive it might be. To have introduced any social reforms would have alienated the ruling class on which security depended. As it was, political unrest was always lurking under the surface, and in Palestine, Syria, and Iraq broke out on occasion into open revolt.

But the impact of the mandatory government none the less served to create some of the conditions for advance, through the growth of an educated class. The 'young effendis' though mainly nineteenth-century liberal in spirit, are now beginning to be interested in social questions. At present this class takes little interest in rural conditions and certainly the gulf between town and village is far wider in the Middle East than it is in Europe: Islam is a civilization without a rural basis. The young effendi feels no link with his father's tenants: though the wealthy own land, there is no landed aristocracy, and no sense of responsibility attaching to landownership. The Arab national movement, therefore, lacks any real conception of reforming peasant life, and until it has one it is difficult to believe that the educated class can play a part in leading movements for reform.¹

More important, the cultivators themselves are becoming more conscious of the need for change. During the war, the whole economy of the Middle East was subject to drastic governmental interference. The inflation of the currency raised prices, and made agriculture highly profitable. Agricultural production expanded and tractor machinery was introduced. But because wages and prices were not controlled, inflation had serious effects for the wage-earners and landless peasants, and the existing inequalities of income were increased.

Moreover, government control of economic life went much further than it had ever done before. Owing to the danger of food shortage, compulsory purchase of grain was introduced, as a result of British pressure. Even some attempt at rationing was made. For the first time government policy had to be related to national aims and this revealed the utter inadequacy of the State machinery for the purpose of economic control.

¹ See Weulersse, op. cit., p. 313. 'Quel contraste entre l'évolution politique que l'on proclame dans les journaux, que l'on affirme autour du tapis vert des conférences internationales, que l'on respire dans les villes, et cet immobilisme agressif des campagnes, accrochées au passé.'

LAND POLICY UNDER THE MANDATES

At the same time, the whole area was subjected to very skilfully conceived Nazi propaganda on the theme of the land for the peasants. For the first time the landlords became identified with French and British power, and class elements entered the national struggle.

These are changes which cannot remain without effect and which make the outlook for reform more favourable than might have appeared ten years ago. In the following chapters, the need for reform is discussed in relation to the special conditions of each country.

Chapter III

EGYPT

LAND AND POPULATION

INETY-SEVEN per cent of the area of Egypt is desert. The agricultural land of Egypt is the Nile Valley, and the cultivated area only 5 million acres.

On this small area there exists a population of 17 million. It is growing very rapidly, having increased from the level of 9.7 million in 1897 to 12.7 in 1917, and 15.9 million in 1937. The high rate of increase is due to a high birth rate, averaging 40 per thousand, the highest in the world after the Palestinian.

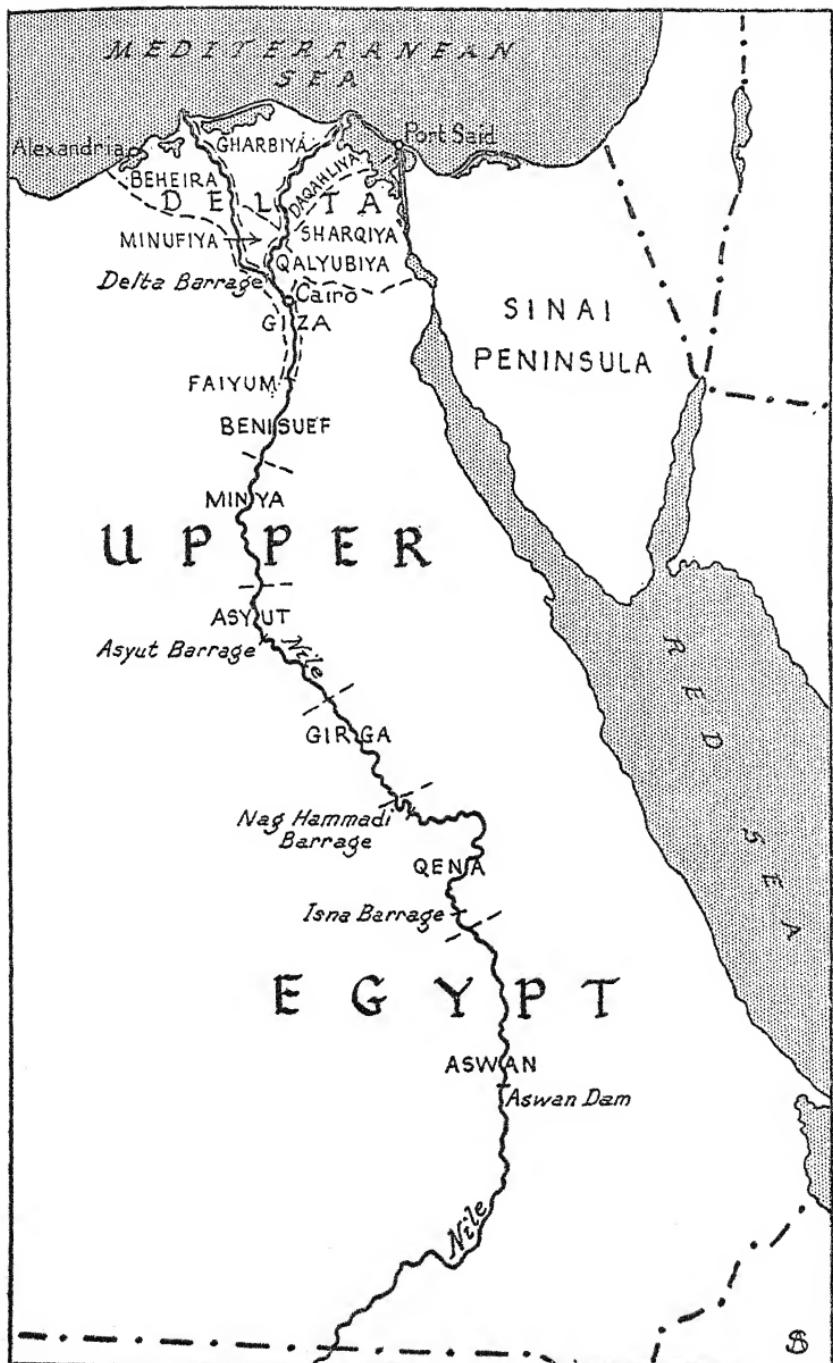
The death rate is actually the world's highest, averaging 26 per thousand, and may be even higher than the published rate. The infant mortality rate is also extremely high, amounting to 224 per thousand in 1935.¹ This high death rate is due to semi-starvation and disease; if health conditions were improved, the immediate effect would be to increase the rate of population growth even above the present rate, and therefore, although the rate of increase is declining slightly, there is no reason to suppose that it will fall off to any marked extent. 'A rate of growth of 1 per cent per annum is to be expected, and it would seem as though the population will reach the twenty million mark within the next fifteen or twenty years.'²

Of the total population, around 70 per cent, or some 12 million, are dependent on agriculture.³ Egypt is mainly an agricultural country and yet has a rural population density of 1,450 to the square mile of cultivated land. This is a level more than twice as high as that of industrial countries in Europe; the density of total population in England and Wales is 672 to the square mile. There are even some rural districts in Egypt where the density of the total population is as high as 2,000 to the

¹ See Charles Issawi, *Egypt; An Economic and Social Analysis* (London, Oxford University Press for Royal Institute of International Affairs, 1947), p. 45.

² *ibid.*, p. 47.

³ The figure of rural population in 1943 is estimated to have been 13,300,000 but this figure includes the smaller towns, and the population dependent on agriculture is, therefore, somewhat smaller.



EGYPT: THE NILE VALLEY

square mile. The high density is obvious to the most casual observer; the valley of the Nile in Lower Egypt looks like an almost continuous village.

Egypt's agricultural problem therefore is to intensify production within this constricted area. The system of farm production is highly intensive, probably the most intensive of any country in the world. The greater part of the land is under perennial irrigation, and on this land there are three periods of vegetation in each year. Crops are distinguished according to the period in which they vegetate, and are known as *shitwi* (winter), *saifi* (summer), and *nili* (flood).

Shitwi crops are sown in November and harvested in May. Wheat is the chief *shitwi* crop and after it in importance comes berseem (Egyptian clover), a green fodder crop which acts as a nitrogen fixer. Other *shitwi* crops are barley, beans, onions, and lentils. *Saifi* crops grow between March and September. The chief *saifi* crop is cotton; others are millet and rice. The advance of perennial irrigation since the end of the last century has caused a great increase in the *saifi* crops. *Nili* crops grow at the time of the Nile flood, in the autumn. The chief crop is maize, sown in August and harvested in November.

All these crops tend to overlap, particularly the *saifi* and *nili* crops, and at almost every time in the year some crop is being harvested.

While it is physically possible to grow three crops in one year, this rate of cropping is too exhausting and the most usual rotation is biennial, as follows:

1. In the winter wheat is sown on part of the land, on the rest berseem. The wheat is harvested in April or May and the berseem cut two or three times for fodder.
2. The soil then remains fallow over the summer.
3. In mid-July the whole of the land is sown with maize which takes only four months to ripen and is harvested in November.
4. The land remains fallow until the following February or March.
5. Next it is sown with cotton as a *saifi* crop, which lasts until November. Sometimes an extra berseem crop may precede the cotton. Cotton is the only crop which takes up the soil for

the whole year, since it must be preceded either by fallow, or by berseem.

6. In the following autumn, after the cotton harvest, wheat is sown again.

Thus the same crop appears on the soil every two years. Other crops may take the place of wheat in the winter period, such as beans or barley, a crop usually grown on the poorer soils on the edge of the desert. In the north of the Delta, rice is grown as a *saifi* crop; it is the only crop which actually grows under water. In Upper Egypt sugar cane may remain two or three years on the same soil and millet may be introduced as a *saifi* crop. This biennial rotation is also exhausting and more progressive landlords now use a triennial rotation, with longer periods of fallow. For the whole country the average cropping rate is one and a half crops per year, two in Lower Egypt and one in Upper Egypt. Thus the total cropped area is 8·3 million acres, on a total cultivated area of 5·2 million acres.

Even with this high cropping rate, yields are very high. The average wheat yield is nearly as high as that of Great Britain, with an average of 17 hundredweight to the acre. The maize yield is 20 hundredweight per acre, the highest in the world. For cotton, yields are also the highest in the world: in 1939 the average yield was 606 lb. per acre, against 238 for the United States, and 368 for the Soviet Union. Wheat and maize take up half the cropped area; cotton takes only 20 per cent but provides half the national income from agriculture.

These high yields are maintained by lavish use of artificial fertilizers. Before the war some 500,000 tons were imported, and average consumption per hectare was 60 kilograms against 38 in Holland and 15 in Denmark. During the war, yields fell owing to the shortage of fertilizers.

This extraordinarily high level of output is achieved by the system of perennial irrigation, which was introduced into Egypt in the later part of the nineteenth century. Until that time the Nile valley had been irrigated on the basin system, as Upper Egypt still is. Under this system the whole country was divided into a chess board of basins, the groups being connected with each other and fed by a canal from the Nile. In July, as the Nile flood begins, the water floods the basins, remains there for a

fortnight, and is then returned to the river. After the flood has subsided, the seed is thrown into the silt left behind, and is harvested the following April and May, the land being left fallow during the summer. This is the method of cultivation practised in Egypt for about four thousand years, described in *Antony and Cleopatra*:

‘The higher Nilus swells,
The more it promises; as it ebbs, the seedsman,
Upon this slime and ooze, scatters his grain,
And shortly comes to harvest.’

It is the silt, the product of soil erosion in Abyssinia, and not the water itself, which causes the extraordinary fertility of the Nile valley, and technical progress has consisted in finding ways of increasing and regulating the silt deposit.

Under the old system, only one crop could be grown a year, and agricultural production could not be much increased since it was limited to the area covered by the natural flood. Further it had the great disadvantage that the area which could be cultivated depended on the size of the Nile flood; if it was a poor flood, large parts of the land were left uncultivated, and there was famine. Another great disadvantage was that it required immense quantities of labour to keep the banks of the canals in good repair, and it was necessary to deepen them continually.

Perennial irrigation removed these dangers. The modern system of irrigation was constructed in the late nineteenth century and involved two processes: the raising of the level of the water by barrages and the storage of water. The first process was completed in the Delta in 1891, when the Delta barrage, begun in 1843, was finished; in Upper and Middle Egypt it was completed with the construction of the Asyut barrage in 1902. These great irrigation works made it possible to supply water at any period in the year, but did not increase the flood of water at its low water level and the supply still had to be limited during the summer. To increase the supply of summer water was the object of the construction of the Aswan dam in 1902, by which the valley of the Nile has been converted into an immense natural reservoir. The dam was heightened in 1912 and in 1933. It has a storage capacity of 5 milliard cubic metres, and is among the largest in the world.

LAND AND POPULATION

As a result of these constructions four-fifths of the cultivated area of Egypt has been converted to perennial irrigation. In Upper Egypt about one million acres remain under basin irrigation which will eventually be converted to perennial.

These great engineering achievements meant, first, that there was no danger of famine; a low Nile might mean that there would be a shortage of crops, but it did not mean, as formerly, a crop failure. Not only was that fear removed, but it was now possible to sow two or even three crops a year. Summer cultivation became possible over the whole cultivated area, and above all cotton could be introduced. Further, the increased supply of water meant that new areas could be irrigated. As a result of perennial irrigation, there was a steady increase in the cultivated and cropped areas, which was almost sufficient, in the early years of the century, to keep pace with the rate of population growth in the same period. The increase of the cropped area, from 1881 to 1913, was 25 per cent, while the increase of population in the period 1897 to 1917 was 30 per cent.

CULTIVATED AND CROP AREAS, 1881-1913

(1 feddan = approximately 1 acre)

YEAR	CULTIVATED AREA		CROP AREA	
	Feddans	Increase %	Feddans	Increase %
1881	4,714,406	—	6,200,000	—
1898-9	5,185,835	10	7,092,710	13·4
1912-13	5,282,626	1·9	7,712,412	9·7

TOTAL POPULATION OF EGYPT 1882-1917

Year		Population	Increase %
1882	..	6,804,021	—
1897	..	9,714,525	42·8 (?) ¹
1907	..	11,827,359	16·2
1917	..	12,750,918	13·0

But in the following period, from the end of the first world war to 1938, the rate of increase of the cropped area has been much slower; the cultivated area increased only slightly, and the crop area increased by about 10 per cent, due to the conversion of about 200,000 feddans to perennial irrigation. Land reclamation went ahead very slowly between 1928 and 1940, at the rate of only 4,000 feddans per annum, or 40,000 in the entire period.

¹ The rate of increase shown between 1882 and 1897 is considered by most authorities to be exaggerated because the census of 1882 greatly underestimated the total numbers.

EGYPT

	<i>Cultivated Area</i> <i>Feddans</i>	<i>Crop Area</i> <i>Feddans</i>	<i>Increase %</i>
1912-13	5,282,626	7,712,412	—
1937-8	5,312,268	8,474,262	10

During this same period (1912-13 to 1937-8) population increased by 33 per cent, from 12 to 16 million. The decennial rate of increase was only slightly lower than before the first world war.

	<i>Total Population</i>	<i>Increase %</i>
1917	.. .. .. 12,750,918	—
1927	.. .. .. 14,217,864	11.5
1937	.. .. .. 15,932,694	12.1

Thus, during this period, population growth outstripped the expansion of cultivation. Agricultural production during this period increased more rapidly than the cultivated area, because there were large increases in crop yields; the wheat yield increased by 25 per cent, and the maize yield by 15 per cent. The over-all increase in agricultural production in the years 1924-8 and 1940 was 18 per cent; thus it barely kept pace with the increase in population, and output per head tended to fall. The money income per head of the rural population also fell; as a result of the agricultural crisis in the nineteen-thirties, the total value of agricultural production fell to some 76 per cent of the 1924-8 level; and to offset the effect of the fall in cotton prices, the Government in the interests of the landlords imposed prohibitive tariffs on wheat and maize imports, and actually subsidized wheat and maize exports. For the large section of the farm population which depends on wages, this meant that the cost of living was raised at the same time as their wages were cut by half.

The long-term fall in the income per head suggests that Egypt is over-populated, in the sense that a reduction of the farm population would not cause a decline in output; the very high density of the rural population would in itself suggest that this is so, since it is ten times as high as the average density of rural population in Europe and five times as high as that of the countries of Eastern Europe which, it is generally agreed, were over-populated before the second world war. Of course the comparison with European rural population densities does not in itself prove that there is a surplus of labour, because owing to the great intensity of cultivation the labour requirements are far higher; in particular the irrigation system itself requires more

labour—turning the screws to raise water for instance—in work which is not needed in Europe at all. None the less, labour requirements are certainly not five or ten times as high as in Europe.

To arrive at an estimate of how much population is actually surplus to requirements, it is necessary to estimate the actual labour requirements of cultivation in Egypt; the only estimate of this kind has been made by Professor Cleland.¹ Basing his estimate of labour requirements on actual observation, Cleland found that, whereas the average area farmed by a peasant family was 1·6 acres, it was possible for a family to cultivate five times that area on the existing methods. This suggests that one-fifth of the present farm labour might be able to maintain the present volume of production; but Professor Cleland considers that a safer estimate of the surplus would be one-half the farm population in 1937; on this basis the number of farm workers could be cut by 2 million and the farm population by some 5 million, without a decline in production. It should be noted that this very high estimate of the surplus numbers assumes that there is no change in methods of cultivation and no greater degree of mechanization than there is at present. If there were a general introduction of machinery, then the size of the surplus would be still greater; according to Professor Cleland, with half the degree of mechanization on American farms, 10 per cent of Egypt's farmers could do the work now done.

A surplus rural population amounting to 5 or 6 million seems so fantastically high in relation to European conditions that it is natural for those who have not seen the Egyptian countryside to regard it sceptically. Yet, although no exact statistical proof is available, it is not likely that a wider range of investigation would invalidate Professor Cleland's calculations, and that there is a large surplus of this order seems beyond doubt. It is this surplus which is forcing down the rural standard of living, and which renders a reform of the land-tenure system imperative, since without a rise in rural incomes there can be no expansion of demand for industrial goods and no expansion of industry, which is necessary if the surplus is to be absorbed into other occupations.

¹ W. Cleland, 'A Population Plan for Egypt', *L'Egypte Contemporaine*, May 1939.

LAND TENURE

In view of the very high density of population it is not surprising that the income per head should be low, in spite of the high productivity per acre. Figures of gross output compiled by the Ministry of Agriculture give £E100 million as the value of the gross output of Egyptian agriculture in 1939, which would give a gross output of £E20 per acre.¹ (This corresponds with an average gross income of about £5 to £10 per acre in Europe.) Thus it is possible for a peasant farmer to live off a farm of 2 acres, with a gross income of £E40 per annum, which may correspond to a net income of, say £E30 per annum. If, therefore, the gross income from agriculture were to be equally distributed between the 12 million farm population, it would give a level of gross income of £E8 per head or £E40 per family; if, that is to say, the land were equally distributed, and each family owned 2 acres of land, it would be possible for the population to exist on a standard which, though very low, would yet be adequate in regard to food.

However, the distribution of landownership is extremely unequal, and three-quarters of the 4 million actively occupied in agriculture do not own even as much as one acre.

DISTRIBUTION OF LANDOWNERSHIP, 1940

Landless Labourers: 1,500,000 (estimated)

Proprietors:	up to 1 feddan	..	..	..	..	1,765,702
	1 to 5 feddans	..	..	..	..	570,449
	5 to 10 feddans	..	..	..	..	85,622
	10 to 20 feddans	..	..	..	..	41,455
	20 to 30 feddans	..	..	..	..	11,907
	30 to 50 feddans	..	..	..	..	9,179
	over 50 feddans	..	..	..	..	12,232
	TOTAL NUMBER OF PROPRIETORS					2,496,546

1 feddan = approximately 1 acre

The class of small proprietors up to one feddan are also employed as part-time labourers. Thus over 3 million of the 4 million actively occupied are either landless or own only tiny areas less than half an acre in extent. The complete figures for the distribution of landownership, excluding the landless labourers, are as follows:

¹ £E1 = £1/0/6 (Sterling).

LAND TENURE
LANDOWNERSHIP, 1940

	<i>Number of Proprietors</i>	<i>% of Total</i>	<i>Area in Feddans</i>	<i>% of Total</i>	<i>Average per head (feddans)</i>
Up to 1 feddan	1,765,702	70.73	724,156	12.40	0.41
1-5 feddans ..	570,449	22.85	1,171,321	20.05	2.05
TOTAL under 5 feddans	2,336,151	93.58	1,895,477	32.45	0.81
5-10 feddans ..	85,622	3.43	573,038	9.81	6.69
10-20 feddans ..	41,455	1.66	558,790	9.57	13.48
20-30	11,907	0.47	288,654	4.94	24.24
30-50	9,179	0.37	356,538	6.10	38.84
TOTAL 5-50 feddans	148,163	5.93	1,777,020	30.42	11.99
More than 50 feddans	12,232	0.49	2,168,514	37.13	177.28
GRAND TOTAL	2,496,546		5,841,011		2.34

These figures show that 37 per cent of the land is owned by large proprietors with estates over 50 feddans, 30 per cent by medium proprietors with farms from 5 to 50 feddans, and 32 per cent by farmers owning under 5 feddans.

A large proportion of the area in the class 'over 50 feddans' is taken up by very large farms. The latest figures for this group are for the year 1925.

NUMBERS AND AREAS OF LARGE FARMS, 1925

<i>Size-Group</i>		<i>Number of Proprietors</i>	<i>Area in Feddans</i>	<i>% of Total</i>	<i>Average area in one holding</i>
50-100 feddans ..	..	6,825	473,414	21.3	69.4
100-200 .. ..	..	3,215	448,934	20.2	139.6
Over 200 .. ..	..	2,425	1,294,898	58.5	530
TOTAL .. ..	..	12,465	2,217,246	100	178.7

It should be noted that the figures which relate to the number of proprietors are not an exact guide to ownership, since the figures really relate to the number of landed properties, not to proprietors: thus it is possible that one landowner may own several properties in different villages which are counted as separate properties in the returns, so that the figures exaggerate the numbers of large landowners and reduce the average area owned by the largest class.

With the increase in population, the class of the small properties has increased far more rapidly than the other classes;

between 1905 and 1940 their numbers increased by 133 per cent, while the area in the under 5 feddan class has increased by 50 per cent.

Most of this increase has been in the area of farms under one feddan, that is, in the size of farm which does not provide a minimum subsistence level.

Thus the increase of population has added to the number of landless or sub-landed peasants. The growth of this class has reduced the size of the medium-sized peasant farms, and has nibbled a little away from the area under large estates. The other classes have remained roughly the same. (See table on p. 37.)

This tendency to sub-division has been attributed by some writers to the effect of the Moslem law of equal inheritance by all the children; but if this were really the determining factor, one would expect to see a sub-division of the estates and larger peasant farms, and this is clearly not occurring. The real cause of the multiplication of small owners is the increase in the numbers in agriculture and the desire of the fellah to acquire land even if he puts himself into life-long debt.

Some of the land under large estates is leased to small tenants at high money rents. Before the second world war rents amounted to £E4 per acre on newly reclaimed land, and to £E10 per acre in the congested districts; during the second world war, rents rose rapidly and in the Asyut district, by 1943, amounted to £E25 per acre. It is obvious that the majority of the fellahs, with an income of £E5 per year, cannot afford to rent land.

The majority of the fellahs are labourers, and rely on wages as their main form of income. The permanently employed labourers, such as foremen on estates, are paid on the *tamallia* system, that is, as workers paid by the year, and receive in payment a small piece of land from $\frac{1}{2}$ to 1 acre. Overseers receive more, from $1\frac{1}{2}$ to $2\frac{1}{2}$ acres, and clerks 2 acres. These areas have been reduced by the landlords during the late war, so that labourers should not benefit by the rise in prices.

The majority of the labourers are paid by large estate owners in money. In the large estates in the Delta labour is organized in gangs under an overseer. The gang system is open to obvious abuses, employment of children and exploitation by the gang leader being the worst. It is not uncommon to see gangs of small

LAND TENURE

CHANGES IN LAND OWNERSHIP, 1905-40

Number of Proprietors	Area in Feddans		Increase %	Average area in Feddans 1905	1940
	1905	1940			
Up to 5 feddans	2,336,151	1,264,034	1,895,477	50	1.26
5-10 feddans	85,622	544,624	573,038	5.2	0.81
10-30 "	53,362	802,323	787,444	1.8	6.69
30-50 "	9,179	331,501	356,538	7.6	14.8
Over 50 feddans	12,232	2,356,602	2,168,514	-4.6	38.84
Total	1,153,149	116 5	5,299,084	5,841,011	10 25

NUMBERS AND AREAS OF SMALL FARMS, 1910-40

Numbers of Proprietors	Area in Feddans		Increase %	Average area 1910	1940
	1910	1940			
Up to 1 feddan	1,765,702	364,920	724,156	0.47	0.41
1 to 5 feddans	570,449	1,005,322	1,171,321	2.16	2.05

girls, from five years upwards, picking cotton, followed by the gang leader with a whip. The authorities do not supervise labour conditions in any way, and the agricultural worker enjoys no protective legislation of any kind. The agricultural labourers were not included in the provisions of the Labour Law which was passed in 1942 to legalize trade unions, because, according to the rapporteur who introduced the law, their inclusion would open the door to communism.

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It is the rapid rate of increase of the population, together with the land tenure system, which causes the extreme poverty of the population. Although Egypt has the most productive agriculture in the world, its real income per head is probably the world's lowest, certainly the lowest of any country with advanced agricultural methods and large capital investment. The physical conditions of existence are peculiarly bad, since much disease is directly due to the methods of irrigation. There is no standard of living; anything lower would be death, as the high death rate proves.

Not only is the poverty of the fellah extreme, but it is increasing. Real wages show a long period tendency to fall, as might be expected with the growing pressure of population.

The level of money wages is very low and has remained at the same level for the last thirty years. In 1914 wages were 2½ piastres (6d.) a day for unskilled labour; they were at the same level in 1939, having risen in the nineteen-twenties and fallen in the nineteen-thirties, as the following table shows.

UNSKILLED LABOURERS' WAGES

		Delta	Middle & Upper Egypt
		Piastres per day	
		(1 piastre = 2½d approx.)	
1914	..	2·5-3	2·5
1920	..	7-8	6
1928	.	4·5	4
1933	..	2·5	2
1939	..	2·5-3	2-2·5

Source: M. A. Lambert, 'Les Salariés dans l'Entreprise agricole Egyptienne', *L'Egypte Contemporaine*, March 1943.

These rates relate to a twelve-hour working day. Before the war the fellah was usually employed for 10-15 days per month,

so that his total earnings per month were only 6s. In 1934 the total earnings of a family per day amounted to 4 piastres, 2 for the man, 1 for the woman, and 1 for a child, and the whole earnings of the family per month amounted to 60 piastres (13s.). At this time there were some 500,000 unemployed on the land, 300,000 entirely without work and 200,000 partially unemployed.

A striking proof of the fact that real incomes per head are falling is given by the decline in total consumption of staple consumption goods between 1920 and 1938, according to figures quoted by Mr Issawi.¹ The total consumption of tobacco, coffee, meat, textiles, and cereals fell during this period, although population increased by 25 per cent. Total consumption of tea and sugar increased, but, if consumption per capita were reckoned, these commodities would also show an all round decline.

During the second world war, money wages doubled, and in 1942 were about 6 piastres (1s. 2½d.) per day. But the cost of living rose faster; the price of maize had trebled during the same period, so that real wages fell. Employment improved and some 100,000 additional workers were employed in industry.

The low level of earnings means that consumption even of energy-producing foods is very low. The diet consists mainly of beans and maize with very little milk or meat. Pellagra, rickets, and night blindness are some of the nutritional diseases frequently met with, and 'for every recorded case of a specific disease there are hundreds of cases of absence of full health due in part at least to malnutrition.'²

Thus though it is fashionable to praise the Egyptian fellah for his industry and frugality, in fact the conditions of his life are of unrelieved horror. The fellahs are physically wretched, and judging by the statistics of rural crime—the extraordinarily high murder rate—they are morally degenerate also; this is hardly surprising, since they are an almost slave population. Conditions are particularly bad in the provinces of Qena and Aswan, where the greater part of the land is in the hands of large companies. Here the rise in the cost of living

¹ op. cit., p. 55.

² Dr Ali Hassan, 'The Importance of Improvement of Standards of Nutrition in the Middle East' in *Proceedings of the Conference on Middle East Agricultural Development* (Cairo, 1944), pp. 191-5.

during the war had tragic results. A malaria epidemic caused by the introduction of the *anopheles gambia* by aeroplanes from West Africa caused the death of 100,000 in these provinces in 1941-3 as a result of their half-starved condition. Nahas Pasha in a speech in the Egyptian Parliament in 1944 admitted that the cause of starvation in Aswan was poverty due to unequal distribution of land; he stated that thirteen interests, land companies, controlled the greater part of the land and the fellahs depended entirely on the landowners for work; the land was fertile, and rents up to £E105 per acre were being asked by landlords.

Thus the war, which brought some improvement in prices and incomes to the cultivators in other Middle East countries, worsened the position of the fellahs, except in so far as there was an expansion of industrial employment.

Without a continued further expansion of Egyptian industry, and a reform of the land tenure system, it is impossible to look for any improvement in their condition since, in spite of the general improvement in the economic position of agriculture during the war, they have not derived any benefit.

Lack of health services. The misery of the fellahs is not only a question of shortage of land and shortage of money; it is also due to soil and climatic conditions which are peculiar to Egypt, to the all-pervading disease caused by lack of clean water, and to the filth and squalor resulting from lack of building materials and fuel.

To eliminate these factors would be possible if as much attention were devoted to the productivity of labour as to the productivity of the land, and if as much were spent on social research and treatment of human diseases as on diseases of plants. Egypt itself has extraordinary natural conditions; it is an oasis, virtually without rainfall, dependent entirely for its fertility on the artificially controlled Nile flood. By the use of modern engineering methods and the application of scientific research, the oasis has been converted into an enormous market garden, in which every inch is cultivated, and over which the Government has complete control through its control of the water supply. Just as in England farmers talk about the weather, in Egypt estate owners discuss their efforts to induce the Government to give them more

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water. Egyptian agriculture is thus an artificial creation, depending on the control of natural factors, soil and climate, which are elsewhere not susceptible to the same degree of centralized control.

But this system of control has never been extended to the human population, which exists in conditions of extreme degradation, building filthy huts of mud on a framework of reeds, drinking, washing, and excreting in the infected canal and drain water, collecting dung by hand in rush baskets for fuel. So far as human life is concerned there has not been the slightest attempt to control the factors of environment. Hence the fellahs are a class apart; the rich landowners and their families live in Cairo; even the officials of the Ministry of Agriculture visit the experimental farms only for short periods. The social system is sometimes described as feudal, but it has in fact none of the merits of feudalism, for there is no element of responsibility on the part of the landowner class.

Hence any improvement in the basic conditions of the fellahs will necessarily have to come, not through individual efforts on the part of the more enlightened farmers, or through co-operative movements among the peasantry, but through large-scale schemes for collective change in water supply, health services, and housing. Recently a number of schemes for rural improvement have been put forward by the Government, but they are unlikely to be carried into effect because they would involve very large expenditure. To bring clean water to the villages, for instance, would cost about £E200 million at 1943 prices, or twice the pre-war annual gross income from agriculture (£E100 million) and five times the annual budget and foreign trade (£E40 million). In proportion to the national income the cost would be greater than the cost of the Beveridge plan to Great Britain, and it is not at present contemplated. But if the standard of living of the peasantry is to be raised, even to a minimum standard of decency, these changes will be necessary; their financial cost is reviewed briefly below.

Water Supply and Disease. A principal factor in keeping down the standard of living are the parasitic diseases caused by infections resulting from water. The percentage of persons infected by bilharzia is usually put at about 50 per cent; according to

Dr Mohammed Abd-el-Khalik,¹ the incidence of the disease in areas under perennial irrigation is from 45 per cent to 75 per cent. This disease is directly due to the introduction of perennial irrigation, since it is spread by minute snails in the drainage canals in which the fellahs wash and work. In the regions of basin irrigation in Upper Egypt bilharzia affects only up to 5 per cent of the population: thus the tragedy of the disease is that it accompanies the intensification of the farming system without which the food output per head would be even lower than it is now.

The effect of these parasitic infections is to increase the existing nutritional deficiencies, and to induce a deficiency even when the diet is adequate. The only real method to overcome these diseases is to provide a clean water supply either by pumping stations, or by the provision of artesian wells. The Health Statute of Egypt, passed in 1944, was the first attempt to improve health conditions and particularly water supplies. It covers projects which will cost, at a minimum, £E52 million, to be spread over a period of 5 years, but it does not cover the provision of water to the villages. The projects include:

1. A scheme for general distribution of drinking water. At the moment this is contemplated only for the towns with over 30,000 inhabitants and for the southern part of the province of Faiyum, that is, for a population of 4 million out of a total population of 17 million. This project will cost £E8,600,000. Villages could be included in the scheme by the use of artesian wells in 3,000 villages out of the 4,000 villages in the country. In the other villages it would be necessary to create special pumping installations for filtering and clarifying Nile or irrigation canal water. Extension of the scheme to villages would raise the total cost to £E149,480,000 and so is not contemplated.

2. Health centres for each group of 15,000 inhabitants, of which the cost will be £E5,700,000.

3. Eradication of infectious diseases, bilharzia and ankylostomia. The former affects 75 per cent of the rural population, the latter 50 per cent. It is proposed to carry out a general

¹ Reported in *Proceedings of the Conference on Middle East Agricultural Development*, p. 150.

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system of inoculation, village by village, costing £4,580,000. Inoculation, however, only effects a temporary cure, and re-infection is easy.

4. Increase in the number of hospitals in towns at a cost of £E4 million.
5. Extension of drainage in towns at a cost of £E4 million.
6. Treatment of tuberculosis and pellagra. At present 250,000 suffer from tuberculosis and 25,000 die annually. £E2 million is to cover the cost of extending treatment for tuberculosis, and £E1 million the cost of erecting isolation camps for pellagra sufferers.
7. Draining of the marshes at a cost of £E3,500,000.

Housing. To speak of housing conditions is to exaggerate; in the Egyptian village there are no houses. The fellahs inhabit mud huts, built by making a framework of sticks, usually cotton sticks, and plastering it with mud. The hut is a small enclosed yard, where the family and the buffalo live together, with a small inner room with a roof but no window and a sleeping roof where chickens, rabbits, and goats are kept.

On a slightly better level are houses built of mud bricks; these are larger, and can be equipped with windows with wooden frames and shutters. Houses in this style are still filthy and fly-infested, but they represent the only feasible form of improvement because the cost of building in brick or stone is prohibitive. In the model village at Bahtim managed by the Royal Agricultural Society the model house for the fellahs built in unburnt bricks is larger and cleaner than the average. It contains one improvement which ensures greater cleanliness and which is quite practicable for general use—a separate entrance and stable for the buffalo. This type of house costs £E23-£E25 to build (pre-1939), but even a house costing £E25 is beyond the fellah's means.

On the large estates and government farms, the fellahs live in mud huts as in the villages, and no attempt is made to introduce better building methods. Even simple improvements such as whitewash and windows are too dear.

The filthy living conditions are due not only to the dirt inseparable from the house but also to the use of camel and buffalo dung for fuel. This is collected in baskets by the women and made

into cakes stored on the roof. This practice could be avoided if a substitute fuel were found; but, although the Middle East is an oil producing region, oil fuel is too dear to be purchased by the fellahs.

REMEDIES

Egypt's problem of poverty is unique in size and intensity. No minor reforms or improvements of a mildly progressive nature—co-operatives, rural education—are likely to affect it. Only by rapid and far reaching changes—land reclamation, land reform, industrialization—will it be possible to make any impression on mass poverty of this extent.

Land Reclamation. The first and most obvious remedy is to increase the area of land under cultivation. On the already heavily cropped land there is little possibility of expanding production; on the contrary, the best agricultural practice leaves more land fallow. Hence the only possibility of increasing agricultural production is to increase the area cropped and cultivated.

There are two ways in which this can be done:

1. to convert one million acres of basin irrigated land in Upper Egypt to perennial irrigation, and so increase the area under summer crops; this depends on the completion of the Isna barrage, now under construction.
2. to extend the cultivable area by land reclamation.

The total cultivable area of Egypt is 7.1 million feddans, of which 5.3 million are now cultivated, so that in addition to the present cultivated area there are another 1.8 million feddans which could be brought into cultivation.

To irrigate the whole of this area by perennial irrigation would require a volume of water amounting to 24 to 25 milliard cubic metres during the period of flood. The natural supply during the flood period is only 12 milliard cubic metres on an average. Hence to bring additional land into cultivation a greater volume of water will be needed.

In 1928-9 a large scale programme for increasing the volume of water was put forward by the Government. These schemes covered chiefly the reconstruction of the Delta barrage, raising of the Aswan barrage (for the second time), and the erection of a

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reservoir at Jebel Auliya¹ on the White Nile in the Sudan. These works are now complete. The raising of the barrage has increased the capacity of Aswan from $2\frac{1}{2}$ milliard to 5 milliard cubic metres. The construction of Jebel Auliya in 1937 raised it by another 2 milliard cubic metres. Thus the total stored water supply available is now 7 milliard cubic metres, including the $2\frac{1}{2}$ milliard already stored at Aswan.

To utilize this surplus the Government plans the execution of a vast programme of works which includes the reclamation of 400,000 feddans in the north of the Delta, and the conversion of half the basin lands, about 500,000 feddans, to perennial irrigation. These schemes, costing £E50 million, involved the erection of a new barrage at Nag Hammadi (finished in 1930), the reinforcement of the barrage of Asyut, the reconstruction of the Delta barrage, now known as the Mahomet Ali barrage (finished in 1940). They also involve a drainage scheme with twenty-four electrically driven pumping stations.

The location of the proposed land reclamation works in the Delta is as follows:²

		Area under Cultivation 1930	To be re- claimed in near future	Area to be reclaimed in distant future
		Feddans	Feddans	Feddans
		Feddans	Feddans	Feddans
Eastern Delta	..	1,310,000	128,000	222,000
Central Delta	..	1,386,700	204,500	364,100
Western Delta	..	625,000	87,000	148,000
TOTAL	..	<u>3,321,700</u>	<u>419,500</u>	<u>734,100</u>

The present plans should be completed in 1953. When completed there will be an addition of about 400,000 feddans to the cultivable area by means of reclamation (which will add presumably about 600,000 feddans to the crop area) and an addition of 500,000 feddans to the crop area by conversion from basin to perennial irrigation, making in all an addition of 400,000 feddans to the cultivated area and about 1 million feddans to the crop area.

This will leave about 900,000 feddans for further reclamation, and a further 500,000 feddans for conversion to perennial

¹ Jean Anhoury, *Les Grandes lignes de l'Economie de l'Egypte* (Cairo, Government Press, 1940).

² See Hussein Kamel Selim, *Twenty Years of Agricultural Development in Egypt 1919-39* (Cairo, Government Press, 1940).

irrigation. To bring these areas under irrigation will need still more water—another 8 milliard cubic metres. This could be obtained by reservoirs on Lake Tana in Abyssinia, and on Lakes Albert and Kioga in Central Africa, and also by control on the 'Sudds' in the Sudan, a marshy region where half of the White Nile water is lost by evaporation. The control of these marshes would have the great advantage of increasing the flood of the White Nile in winter, as in summer, and serving the needs of the Sudan as well as of Egypt.

By these vast schemes it would be possible to bring almost the whole of the cultivable area of Egypt under control—that is, 6.8 million out of the maximum 7.1 million feddans.

The utmost limits to which cultivation could be expanded would thus be by some 1.3 million feddans, including about 0.4 million to be added by present schemes, and 0.9 million to be covered by schemes in the future. This represents an increase of 25 per cent on the present cultivated area. This increase, it is estimated, would feed a population of 22 million, which with the present rate of increase will be the total reached by 1970.

Thus even if all the land available is reclaimed in twenty-five years and converted to perennial irrigation the rate of expansion can only just keep pace with the 25 per cent increase in population which is likely to occur. Actually it is unlikely that this land will be reclaimed within twenty-five years; according to the Director of State Domains, Osman Abaza, it will take fifty years to reclaim the 1½ million feddans of cultivated land. It is therefore urgently necessary to speed up land reclamation and to connect it with an extension of peasant ownership.

Land reclamation is now being carried on by the Egyptian Government, through the State Domains Department of the Ministry of Finance, and by private foreign companies, who were allowed to purchase land for reclamation in the period of British rule. The main reason why the progress of reclamation is so slow, and why it was stopped entirely during the second world war, is that the costs are extremely high, if the estates under reclamation are managed as government farms, and do not attempt to offer their labourers the prospect of becoming owners.

On the land belonging to the private land companies, in particular the Biharra Company (*Société Anonyme du Béhéra*) a much more enlightened policy has been followed. On its large

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estates in the Delta, this company has introduced a system of selling land to cultivators which offers far better conditions of rural employment than exist elsewhere in Egypt. By offering better terms, this company has promoted re-settlement of cultivators from the congested areas and so serves to relieve in some degree the pressure of population in Upper and Middle Egypt.

The chief point of the Biharra system is that the ownership of the land is transferred to the cultivator when the land is partially reclaimed. Under specially favourable contracts, about 75,000 acres have been disposed of to over 10,000 tenants, the average holding being 7 acres, which is of course much bigger than the average size of fellah's holdings. The remainder of the land, about 30,000 acres, is in process of being reclaimed. The cost of reclamation on the Biharra estates is less than half of the costs on government farms, amounting to £E14 per acre, as compared with a cost of £E30 per acre on government farms. These lower costs are achieved partly by attracting labour with the hope of purchase, partly by better technical methods, such as pumping back the drainage water, and using large-scale machinery. Thus the company can sell land to the fellah at much lower prices.

On the government estates, by contrast, there are vast areas of partially reclaimed land where the managers complain of shortage of labour. On the Ministry of Agriculture's estate at Sirw, for example, there is no attempt to settle labour on the estate, and all reclamation was stopped during the war. Yet only a few miles away there is a very densely populated area, the village of El Gamalia, where there is a population of 9,000 living on a land area of 1,000 acres; and where cultivation is so intensive that cotton is planted under the wheat crop before the wheat harvest.

None the less, even if the rate of reclamation is speeded up, and every acre possible brought under cultivation, it will only suffice to employ and feed the increase in population, and will not raise the income per head of the population already in existence. The surplus already existing will remain and will increase as population grows; land reclamation alone therefore cannot serve to raise the standard of living of the existing population.

Industrialization. To remove the surplus and to raise the living standard will only be possible if there can be a big expansion

of industrial employment, and if migration to other Middle East countries can relieve the pressure on land resources.

The prospects of industrial expansion depend very largely on the expansion of the internal market. Before the war, the development of Egyptian industries was hindered by the shortage of capital; but now that Egypt is a creditor country, capital is no longer a limiting factor; the sterling balance could provide sufficient basis for the development of a considerable industry. The electrical power stations to be built in connection with the Aswan dam will provide the power needed.

The main limiting factors are, therefore, the lack of skilled labour and the lack of an internal market. The war promoted the rapid expansion of workshops in Cairo and showed that a high degree of mechanical skill can be developed by Egyptian workers, and it is clear that skilled labour need not be a long-term limiting factor.

But the lack of an internal market is more serious, since it is determined by the low level of earnings of the farm population, and without a large-scale change in the ownership of land there is likely to be no increase in earnings.

Land Reform. Land reform, on the East European model, dividing all estates above certain minimum sizes, between the landless labourers and small proprietors, would be the quickest and easiest way of alleviating poverty. There is nothing intrinsically impracticable in such a change and no reason to believe that it would be attended by a decline in production. From the standpoint of regulating production, Egypt is already one huge 'managerial' estate; the irrigation service controls water supply and with it the crop areas. The Government has a much greater degree of control of agriculture, on a planned basis, than the most socialist government in the world. It would be easily possible to redistribute the ownership of land—in effect the income from the land—leaving methods of production unaffected, and there would be no reason to expect a fall in yields or decline in areas, since the Government could continue to regulate crop area and rotations as it does now. From the standpoint of management, the reform of landownership would be easier to carry out in Egypt than in any other country.

But nowhere are the political obstacles greater. The Egyptian

'pashas' are cotton lords, big business men controlling large fortunes, who hold the entire country in their grip and are utterly opposed to any measure which would raise the level of the cultivators. Many of the big estates are owned by large companies, and on these any sort of human tie—such as sometimes exists in the Arab world between the sheikh and the tribesman—has completely disappeared. Although the Government is in complete control of production, it will never use its powers to modify the powers of the landlords. The Government represents this small section of the population, and it is in their interest that cropping plans are laid down.

War experience revealed this. The reduction of the cotton area, in order to grow more wheat, which was urgently necessary during the war to feed the population, could only be accomplished by great pressure from allied authorities. The Government then purchased grain from the estates at high prices and the price of food rose rapidly, making it impossible for the poorer peasants to buy.

War experience also proved that any attempt to control wages or rents was doomed to failure. For instance, in 1944, a project for stabilizing rents of land was put forward by the Government. But it was rejected by the Financial and Agricultural Commission of the Chamber of Deputies on the grounds that it was 'an attack on the rights of property and free competition'. Perhaps the most striking illustration of the Egyptian way of life is the fact that food rations were assigned to different categories of consumers on the basis of incomes—higher income groups getting bigger rations.

Everything that has happened in the Nile Valley in the past century has strengthened the power of the landlord class. It was the reforms introduced by Mahomet Ali which founded the big estates; the rights of the tax collectors, the oppressors of the country under Ottoman rule, were abolished by his reforms and they were given grants of land as compensation. Then the landlords greatly increased their estates by bringing new land into cultivation; under Mahomet Ali, grants of uncultivated land were made to rich landowners, free of tax for a period, on condition that the land was brought under cultivation; under Ismail, this right became one of complete ownership. During the nineteenth century, the total cultivated area expanded by

some 70 per cent and most of it has been acquired by landlords.

Foreign intervention has also strengthened their power; the one really popular movement that Egypt has ever known, the revolt of Arabi Pasha, himself a fellah, was put down by the British bombardment of Alexandria in 1882. Later, when British rule in Egypt was established, Lord Kitchener made an isolated attempt to improve the position of the fellah by the Five-Feddan Law, in 1912, which attempted to prevent the sub-division of farms below five feddans, but such legislation was of course ineffective, with the continual pressure to sub-divide land.

The great extension of irrigation, and the immense engineering constructions on which about two-thirds of the cultivated area depends and without which the country could not exist, were carried through by British capital and British engineering skill, but were not accompanied by any measures to improve the position of the vast mass of the cultivators. At the same time, the ruling class has been able to distract attention from internal evils, and to mobilize all political forces into anti-British nationalist parties, which have no genuine political programme and no conception of economic and social progress. Thus the whole trend of political development has been to increase the hold of the pashas and effendis and to prevent any change.

Economic factors also strengthen the landlords. The great expansion of cotton cultivation, which has been the main source of their wealth, strengthens the existing system, since it is a crop which needs large numbers of unskilled seasonal labourers, and perpetuates semi-slave labour.

With the present distribution of wealth and power, there is likely to be no measure of land reform, even of a limited kind. Land reform must therefore wait upon political change, and may one day become the main motive for revolution.

So, too, with migration. It is commonly believed that the Egyptian labourer does not migrate because he is incapable, through inertia or apathy, of physical or mental adaptation to any other climate; but more powerful limitations are lack of capital and lack of contact with the outside world. These reasons prevent migration within the Nile Valley itself, from the congested poverty stricken regions of Upper Egypt to the less densely populated Delta. If the State facilitated both internal

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and external migration, there is no reason to believe that these obstacles could not be overcome. The obvious place for some at least of Egypt's surplus two million would be Iraq, with a similar climate and broadly similar agricultural conditions. If Iraq could expand its irrigation, increase the crop area, and rationalize landownership, it could undoubtedly find room for Egyptian labour. But the possibilities of movement to Iraq must also wait on political change; to move the Egyptian fellah would mean, as things now are, the exchange of one servitude for another.

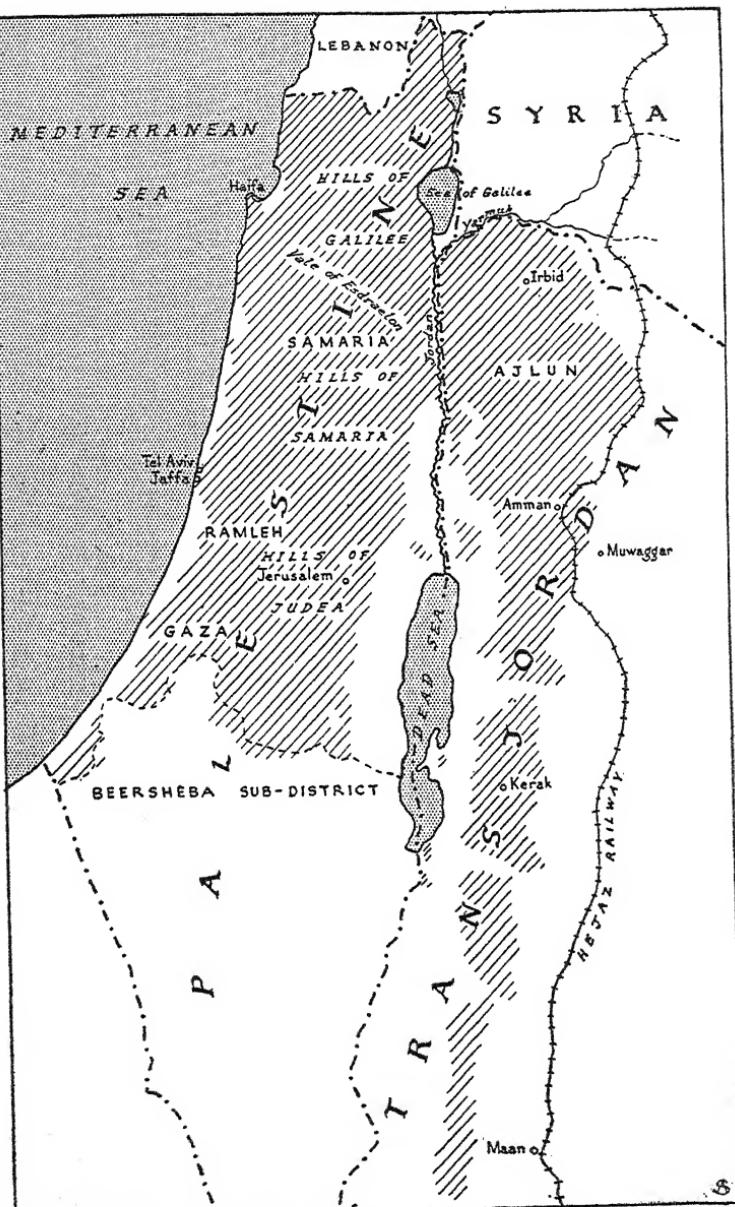
Chapter IV
PALESTINE

LAND AND POPULATION

IN view of the aura of vast possibilities which propaganda has created round the agriculture of Palestine, it is important to remember two facts; first, that it is a small country, and second, that its soil is shallow and infertile. The parable of the sower remains the best description of its agriculture; stony soil, weeds, and pests. The cultivated area amounts to only two million acres, on which there exists a rural population of 870,000. There are areas of waste land which could be reclaimed, if irrigated, but even with irrigation the yields are not high in relation to yields in Europe.

Grain yields are the lowest of any Middle East country. The average wheat yield in the years 1934-8 amounted to only 3 hundredweight per acre. Even the Jewish farms on non-irrigated land achieve only an average yield of wheat of 8 hundredweight to the acre. This figure is below the European average (9½ hundredweight to the acre), and is about the same as the average wheat yield in Eastern Europe. The fact that the most modern and intensive methods achieve only the same wheat yields as the Balkan peasant, with his primitive and extensive cultivation, suggests that the scope of agricultural advance is limited, at least so far as cereal cultivation is concerned, and cereals are still the chief crop. With irrigation, much higher yields, somewhat above the European average (though below the West European level), can be attained, but irrigation is costly, and the water resources of the country are not large.

Low yields are in part a consequence of soil erosion. Centuries of uncontrolled grazing have destroyed the forests, arable cultivation in the hills has reduced the quantity and quality of the soil. It is not more cultivation which the soil needs, but less; less cropping and more terracing on the hillsides, more afforestation and less grazing. Palestine's agricultural problem is not to improve the 'efficiency' of individual farms, but to conserve its rapidly eroding soil and to raise productivity by a national policy, at present precluded by the division into two communities.



PALESTINE AND TRANSJORDAN: CULTIVATED AREAS
The cultivated areas in the Beersheba sub-district are not indicated as their extent varies and is uncertain

In these unfavourable soil conditions, the rapid growth of the rural population is a threat to agricultural productivity. In the last twenty-five years, the growth of the total population of Palestine has been very rapid, the Jewish population having multiplied by six since 1922, and the non-Jewish population having doubled. The table shows the rate of growth in this period.

POPULATION OF PALESTINE, 1922-46¹
(including Nomads)

Year		Total Population	Non-Jewish Population	Jewish Population
1922	..	752,048	668,258	83,790
1923	..	778,989	689,329	89,660
1924	..	804,962	710,037	94,945
1925	..	847,238	725,513	121,725
1926	..	898,902	749,402	149,500
1927	..	917,215	767,526	149,789
1928	..	935,951	784,295	151,656
1929	..	960,043	803,562	156,481
1930	..	992,559	827,763	164,796
1931	..	1,033,314	858,708	174,606
1932	..	1,073,827	881,690	192,137
1933	..	1,140,941	905,974	234,967
1934	..	1,210,554	927,579	282,975
1935	..	1,308,112	952,955	355,157
1936	..	1,366,692	982,614	384,078
1937	..	1,401,794	1,005,958	395,836
1938	..	1,435,285	1,024,063	411,222
1939	..	1,501,698	1,056,241	445,457
1940	..	1,544,530	1,080,995	463,535
1941	..	1,505,500	1,111,398	474,102
1942	..	1,620,005	1,135,597	484,408
1943	..	1,676,571	1,173,579	502,912
1944	..	1,764,522	1,210,922	553,600
1945	..	1,834,935	1,255,708	579,227
1946	..	1,912,133	1,303,883	608,230

The increase of the Jewish population is due mainly to immigration, while the increase of the non-Jewish population is due to a high rate of natural increase. The annual rate has risen from 23.27 per thousand in the years 1922-5 to 30.71 per thousand in the years 1941-4. The cause of the high rate of increase of the non-Jewish population is the high crude birth rate of the Moslem population which is higher than that of any Arab country, and is believed to be the highest in the world. It shows no tendency to fall. The infant death rate has fallen from around 200 per 1,000 live births in the nineteen-twenties to below 100 in 1944. The rate is, of course, still high, and deaths

¹ The figures for 1944-6 are estimated by a different method from that used for the earlier ones, and are, therefore, not strictly comparable with them. The figures for 1922-30 are mid-year; the 1931 figure is as at the date of the census; the figures for 1932-46 are as at 31 December.

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under five years still amount to more than half of the deaths among the Moslem population; but the improvement in health conditions is likely to reduce it, and so the present rate of increase is likely to continue.

The rural population has increased, but its proportion of the total has decreased, from 65 per cent in 1922 to 51 per cent in 1944.

RURAL SETTLED POPULATION

	Non-Jewish	Jews	Total
1922	477,693	15,172	492,865
1931	602,387	46,143	648,530
1931 ¹	519,052	29,276	548,328
1944	733,870	138,220	872,096

The majority of the rural population are Moslem, while the Jewish population are predominantly town dwellers and account for half the population of the towns. Calculating from the highest estimates quoted in the *Report of the Anglo-American Committee*, the total population engaged in agriculture in 1970 will be some 1,270,000, assuming that the present rate of increase continues, and that the distribution of population between agriculture and industry remains the same.²

It is this prospective 50 per cent increase which makes planned agricultural development imperative for Palestine. Such planning must aim, first, at conserving and improving the soil resources now cultivated by improved terracing, reducing arable cultivation on the hills, and control of grazing. Secondly, it must aim at taking more land into cultivation; the rapid rate of increase of the rural population will cause increased pressure on the existing cultivated area, and will endanger its productivity still further, unless more land can become available.

How much land could be taken into cultivation has long been the subject of political controversy. The size of the cultivable area has been disputed, because between the cultivated land and the desert there are zones of very extensive cultivation bearing poor crops or used for winter grazing, and these zones, it has been claimed, could be made productive. At present these areas are classified as 'waste' by the official figures for land utilization.

¹ According to the administrative framework of 1944. See *A Survey of Palestine*, prepared in December 1945 and January 1946, for the information of the Anglo-American Committee of Inquiry, 2 vols. (Jerusalem, 1946), vol. 1, chap. vi.

² *Report of the Anglo-American Committee of Enquiry, regarding the problems of European Jewry and Palestine*, Cmd. 6808 (H.M.S.O., 1946), p. 20.

PALESTINE

LAND UTILIZATION IN PALESTINE¹

	Dunums	Acres
Climatic Desert . . .	11,000,000	2,718,000
Utilized for agricultural, urban, and other purposes . . .	9,000,000	2,223,000
Uncultivated Land:		
Forest, mainly ruined . . .	1,500,000	370,000
Waste (i.e., grazing) . . .	4,500,000	1,110,000
Total Uncultivated Land . . .	6,000,000	1,480,000
TOTAL Area (including South Palestine) . . .	26,000,000	6,421,000

(1 Palestine dunum = .09 hectares, or approximately $\frac{1}{4}$ acre.)

The land now actually cultivated is 8 million dunums, or nearly 2 million acres. This includes 1½ million in South Palestine and 6½ million in the rest of the country. South Palestine, known also as the Beersheba district or the Negeb, is nearly as large as the whole of the rest of the country, with an area of 13 million dunums, but only a small part of it is cultivated, along the desert border.

Some twelve years ago it was claimed by Jewish Agency experts that the cultivable area of Palestine was much larger than the area actually cultivated: they believed that some 2½ million dunums of uncultivated land could be added to the 6½ million dunums already cultivated in northern Palestine, and, in addition, that there were very large possibilities of extending cultivation in South Palestine if water could be found. But the Government of Palestine in its evidence to the Peel Commission in 1936 showed that there were only very small possibilities of extending cultivation without irrigation, and they submitted the opinion that the total cultivable land in northern Palestine was 7,120,000 dunums, i.e., slightly more than the area actually already under cultivation.² So far as South Palestine is concerned, investigations have failed to reveal water supplies except near the coast; the possibilities of expanding cultivation in this arid region therefore appear to depend on the success of the dry farming experiments now in progress.

Thus it is not now generally believed that there are large

¹ See G. N. Sale, 'Afforestation and Soil Conservation', *Journal of the Middle East Society* (Jerusalem), October—December 1946.

² *Palestine Royal Commission Report*, Cmd. 5479 (H.M.S.O., 1937), p. 235.

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areas of land which could be brought under cultivation, except by the extension of irrigation. The possibilities of extending irrigation were reviewed by the Partition Commission in 1938, which reviewed all the chief sources of irrigation water. They reached the conclusion that, on the most optimistic view, the area of land which could be irrigated in addition to that already under irrigation would be approximately 350,000 dunums, (87,000 acres¹); this would represent an addition of 70 per cent to the area of 500,000 dunums (123,500 acres) already irrigated.

At present there is little doubt that the whole of the land which can be cultivated under existing conditions is being cultivated now, including some land in the mountain districts which from the standpoint of soil conservation ought not to be cultivated at all.²

There is already considerable pressure on the land. The growth of the agricultural population is reducing the average size of farms and adding to the number of landless labourers. In 1931 the total rural population was 648,530, in 1944 872,090. The average size of farm, according to the Johnson-Crosbie Report of 1930, was 12½ acres,³ and 10½ acres according to the 1944 study, which covered five villages.⁴

There has been much controversy as to whether this average farm holding is a sufficient area to provide the minimum necessary for subsistence. Sir John Hope Simpson, basing his estimates mainly on figures of the Jewish Agency, considered that the 'lot viable' or minimum subsistence area of non-irrigated land was 130 dunums (32 acres); with half the land irrigated it was estimated to be 40 dunums (9.8 acres); and on plantations to be 15 to 20 dunums (2.9 to 3.7 acres).⁵ These figures appear very high, but it must be remembered that the productivity of the land is very low.

Thus, the majority of the Arab population already live on farms which do not guarantee a subsistence minimum. More detailed calculations of the 'lot viable' were made in the *Survey of Palestine*,⁶

¹ *Palestine Partition Commission Report*, Cmd. 5854 (H.M.S.O., 1938), p. 62.

² See Sale, *op. cit.*

³ *op. cit.*, p. 22.

⁴ *Palestine General Monthly Bulletin of Current Statistics*, January–March 1946, p. 56.

⁵ *Palestine Report on Immigration, Land Settlement and Development*, Cmd. 3686 (H.M.S.O., 1930), p. 64.

⁶ pp. 272–89.

which define more exactly the minima for different types of cultivation, and these figures are also much above the average actually cultivated.

With the present amount of land a large part of the Arab population must necessarily live on a very low level. Pressure on the land is of course aggravated by the wasteful exploitation of land, in particular the fragmentation of holdings, which reduces productivity still further. But even if the land tenure system were improved, and farms consolidated, the effect on production would not be very great. Thus the prospective increase in the rural population of 400,000 cannot be supported without reducing the standard of living and reducing the productivity of the soil, unless there is a large increase in the area irrigated. To support this increase even at the present low standard of living would require, assuming an average of some 10 acres per family, an additional area of 1 million acres, or 4 million dunums, and since no such increase is possible without irrigation, the question of the full utilization of the country's land and water has become more urgent in recent years.

Since the report of the Peel Commission in 1937, the discussion of the prospects of increasing irrigation has been carried further by Zionist writers who have put forward very ambitious proposals for the development of the country's water resources, linked with the idea of a Jordan Valley Authority.¹

At present the Jordan water is almost useless for agriculture. The river flows for much of its length at a lower level than the land on either side, and water can be used for irrigation only in the narrow strip of the valley itself, between the hills of Judaea on the one side and the Transjordan plateau on the other. To use more Jordan water for irrigation would mean raising its level along most of its length by the construction of a high level canal along the side of the hills, parallel with its present course. This would then deprive the Palestine Electrical Corporation of the water supplies now used to generate electri-

¹ W. C. Lowdermilk, *Palestine, Land of Promise* (London, Gollancz, 1944) and R. R. Nathan, O. Gass, and D. Creamer, *Palestine: Problem and Promise* (Washington, Public Affairs Press, 1946). Memorandum No. 19 by the Palestine Government to the Peel Commission also examines this project in detail; *Palestine Royal Commission, Memoranda prepared by the Government of Palestine*, Colonial No. 133 (H.M.S.O. 1937), pp. 65-8.

cal power by the fall of the river below the Lake of Galilee. The supporters of the scheme propose to overcome this difficulty by leading water from the Mediterranean into the Jordan Valley, and provide electrical power through the drop from the level of the Mediterranean to that of the Jordan Valley. The Jordan would become a salt water stream.

Obviously such a scheme would be very costly, and the amount of water which would be made available would be small in relation to the cost; the Jordan is not the mighty river of popular imagination. The construction of the high level canal would be technically difficult; so too would be the regulation of the river crossings, the *wadis* which intersect the valley and carry the drainage water from the hills in the rainy season; the whole of the flood water would have to be passed over or under the proposed canal; a large number of crossings would be necessary, and would be expensive to maintain because the torrents change their courses from year to year.

There is much difference of opinion as to the additional amount of land which the scheme could irrigate. The outside estimate of the area which could be irrigated, made by Mr Nathan, puts the figure at 2,890,000 dunums (three-quarters of a million acres), but this figure assumes not only the use of the Jordan, but also of water from the Litani river in Lebanon, and from the Yarmuk, which rises in Syria and flows through Transjordan; the use of these rivers would involve an agreement between these territories, which, in existing political conditions, is hardly practicable. Other estimates put the area which could be irrigated at a much lower figure; the Peel Commission memorandum claims that only between 7,000 and 10,000 acres could be brought under cultivation. In any event the cost would be very high; Mr Nathan estimates it at £P97,000,000, an enormous sum, even if the scheme brought the maximum area under cultivation—and a sum which, if expended on irrigation in other Middle East territories, in Iraq or Syria, would make far larger areas productive.

However, to judge the scheme from the standpoint of any normal economic considerations is clearly impossible, since it is advocated as part of the conception of the Jewish National Home, and is not intended to be a development project to bring in profits, or even to cover costs. Whether it is undertaken

or not will depend on political decisions about the future of Palestine, and it will certainly not be undertaken at all, unless it is intended to find room on the land for a much larger Jewish community. The fact that the motives for putting such a scheme into operation would be political mean that it cannot be regarded as likely to offer any great prospect of relieving the pressure of the Arab cultivators on the land, still less of supporting the prospective increase in the Arab rural population. Even if the whole of the land which the scheme would add to the present cultivated area were available to the Arab population, it would barely provide enough land to support the increase. For the highest estimate put forward by Mr Nathan of the land area which the scheme would make available is only three-quarters of a million acres; and as we have said, to support 400,000 more people on the land would need the addition of one million acres to the cultivated area, even at the present low standard. Yet, of course, the assumption that all the land would be available to Arabs is wholly unreal; the most that they could hope for would be some share in the area appropriate to their share in the total population.

This is not an objection to the Jordan scheme; it is of course highly desirable that money should be spent for any reason if it will promote the better utilization of Palestine's land and water, apart altogether from the political motives which may inspire it. But because it is easy to lose a sense of perspective in Palestine in regard to this kind of project, it is important to point out that it will certainly not be a panacea for Arab rural poverty. Even the fullest conceivable development of Palestine's water resources, regardless of cost, is not going to be sufficient to support the existing rural population and their children even at their present low standard.¹ If a fall in the living standard of the Arab cultivators is to be avoided, it will be necessary to plan not only for an extension of cultivation through a Jordan Valley development scheme, but also to plan for further industrial development in Palestine.

AGRICULTURAL INCOMES

The agricultural economy of Palestine is divided into two sectors, the Jewish settlements supplying the Jewish urban

¹ See M. G. Ionides, 'Irrigation in Palestine', *The World Today*, April 1947.

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community, at higher prices through co-operative marketing organizations, while Arab farm production supplies the Arab townspeople at lower prices, and also supplies the bulk of the grain requirements of the Jewish urban community.

There are also two labour markets, since the terms of the Jewish Agency's leases prohibit the employment of Arab workers on the Jewish settlements. Because the economy is divided into two sectors there are two distinct income levels and standards of living. The income per head of the Arab cultivators is much lower than that of the Jewish settlers. The income of the agricultural population was calculated by Gruenbaum in 1936 to be £4,376,000 for the Arab population, and £1,879,000 for the Jewish population. These figures include incomes received by the agricultural population for non-agricultural work, such as government employment on road-building; the income from these non-agricultural activities was £1,000,000 for the Arabs and £600,000 for the Jews. They include also about £300,000 of income received by the Beduin, so that the settled Arab agriculturalists received only £4,076,000. The settled Arab peasant population in 1936 numbered about 580,000, and the average income per head of Arab rural population was therefore just over £7 per annum. The Jewish rural population in 1936 was 55,300 and their average income per head about £34.

There is no doubt that the standard of living of the Arab rural population has risen during the period of mandatory rule. This is particularly true of health and education. The most striking proof of this is the decrease in the child mortality rate. Full details are given in the *Survey of Palestine*,¹ and there is no need to recapitulate them here.

Whether the average income per head in agriculture of the Arab population has increased during the period is impossible to say, because the statistics of agricultural production do not show the division between the two communities. There has been a rapid intensification of farm production, mainly in the direction of citrus fruit and vegetable production. Grain yields have risen only slightly and the increase in grain production has been made by extending the cultivated area. These increases may be large enough to offset the fact that

¹ Chapter xvi, section 5, 'The Standard of Living of Palestinian Arabs'

a much larger rural population is living on the land and that some 25 per cent of the land has been sold to the Jewish community.

During the late war it would appear that the income of the Arab cultivators has improved in relation to that of the Jewish settlers. The 1939 value of agricultural production, less live-stock produce, was £P6,055,000. In 1944 the value of agricultural production, at 1939 prices, was somewhat lower, amounting to £P5,888,000, but 1944 was a bad year, and in the previous years, 1942 and 1943, there was an increase in production as compared with 1939, so that the total income from agriculture was somewhat larger during the war. As a result of the inflation of money values, the actual value of agricultural production in 1944 was £P28,237,000, and of this £P19.5 million was earned by the Arab population and £P8.7 million by the Jewish.¹ If the income per head of rural population is calculated (income per person occupied is too questionable a figure) on the basis of a Jewish rural population of 138,220 and an Arab rural population of 733,870, the average income per head amounts to £P27 for the Arab population and £P63 for the Jews. Thus the income per head of the Arab rural population has risen in relation to that of the Jews.

The rise in prices during the war has greatly improved the condition of the Arab cultivator in that it has freed him from debt. In 1930 it was estimated that the average indebtedness of a fellah family was £P27 on which interest at an average rate of 30 per cent was being paid, while the average income of a fellah family was between £25-£30 per annum. Thus it was virtually impossible for any farmer to repay more than a fraction of his debt, and a debt once incurred could never be cancelled, but had to be renewed at intervals at exorbitant rates of interest. But the rise in prices, increased production, and better opportunities of seasonal employment due to the war have brought a measure of prosperity to the fellah in Palestine as they have not in Egypt. Indebtedness has been much reduced and in some districts almost abolished. Thus there would appear to have been an improvement in the condition of the Arab population due to the war, and some of the gain may be permanent,

¹ P. J. Loftus, *The National Income of Palestine, 1944* (Palestine Government Press, 1945). This figure is reached by deducting income from fisheries and forests.

AGRICULTURAL INCOMES

since there has been some investment in machinery and live-stock.

ARAB LAND TENURE

None of the numerous fact-finding commissions which have visited Palestine have succeeded in finding figures of land-ownership or the exact numbers of the Arab agricultural workers without land. It is generally accepted that large Arab land-owners own about one-quarter or one-third of the cultivated land, the Jewish community one-quarter, and the small Arab cultivators less than half.

The number of landless agricultural workers was estimated at 30,000 families, or 22 per cent out of a total 120,000 families dependent on agriculture, according to the census of 1931. Their numbers are now certainly larger.

The majority of the Arab cultivators own very small areas; according to the village survey of 1936 which covered 322 villages, 47 per cent owned less than 2 acres, 63 per cent less than 5.¹ The following table shows the distribution of land in these villages.²

Size of Holding (Dunums)	No. of Holdings	Gross Area of Holdings (Dunums)	Average area of a Holding (Dunums)	Percentage	
				No. of Holdings	Area of Holdings
0-4 ..	22,899	40,677	1.8	31.9	1.2
5-9 ..	10,812	69,089	6.39	15.1	2.1
10-19 ..	11,440	157,797	15.53	15.9	4.9
TOTAL 0-19 ..	45,151	267,563	5.9	62.9	8.2
20-199	24,687	1,460,933	59.3	34.5	44.7
200-399	1,320	354,227	268	2.0	10.9
Over 400	631	1,170,012	1,853	0.9	35.8
TOTAL ..	71,789	3,252,735	45.31	100	100

One Dunum = approximately $\frac{1}{4}$ acre.

These holdings are broken up into several pieces. The average Arab holding consists of a small area in the inner village, and a number of pieces scattered widely over the area of the village, including land of different qualities. A detailed investigation of

¹ *Palestine General Monthly Bulletin of Current Statistics*, January–March 1946.

² These figures include some Jewish settlements and as far as the larger holdings are concerned do not relate only to Arab ownership.

land tenure in five Arab villages in the Ramle district in 1944-5 indicates how far this fragmentation has gone.¹ Of the 690 holdings possessed by the inhabitants of the 5 villages, only 6 per cent were made up of a single piece of land, and the rest were divided into a number of fragments, with an average of 9 pieces per holding. Most of these fragments were small, the modal (i.e. most frequent) size being between a quarter and a half acre.

This division, of course, has great disadvantages; it prevents the introduction of machinery, of irrigation except on a co-operative basis, prevents weed and pest control, and is wasteful of time. But it is a problem which, even in European peasant economies as advanced as Switzerland, is very rarely solved. In Palestine no government is likely to be strong enough to carry through a general consolidation of holdings into single units. Such consolidation could, of course, be done at the same time as the settlement of title to land, but neither the Palestine nor the Transjordan Government has attempted this; and though the French authorities in Syria succeeded in consolidating holdings in some villages, the area affected was small.

Not only are holdings broken up into many small fragments, but many such fragments are owned by several co-owners. In the five villages investigated, about half of the number of 'parcels' (i.e., fragments) were held by more than one person; 27 per cent were held by two or three persons, and 23 per cent were held by four or more persons. 'The worst instance encountered was that in which a parcel of 4.3 dunums (1 acre) and another of 3.4 dunums (0.8 acres) were each held jointly by no less than 48 persons.'²

Co-ownership is a way of avoiding further sub-division of holdings, and the average numbers of co-owners increase with the size of the parcels. Thus it reflects the shortage of land and also the result of the Moslem law of inheritance. It impedes any progress in agricultural methods and is naturally the source of endless conflict, reflected in a village saying, 'rights in land and wrongs to women are the worst of village evils.'

The typical holding is split up into many parts, and is not controlled by a single owner. In the five villages investigated

¹ *Palestine General Monthly Bulletin of Current Statistics*, October 1946, pp. 559-73.

² *Palestine General Monthly Bulletin of Current Statistics*, December 1945, p. 759.

the average size of a holding amounted to 34 dunums of cultivated land (3.4 hectares or 8.4 acres); another inquiry in 1936 in 322 villages gave an average of 38 dunums.

There is considerable inequality in the size of holdings. The investigation for the five villages showed that 11 per cent of the land and 50 per cent of the holdings were under 2 hectares (5 acres) in size, 49 per cent of the land and 42 per cent of the holdings were between 2 and 10 hectares (5 to 25 acres), and 40 per cent of the land and 8 per cent of the holdings over 10 hectares. But the proportion of large estates was small; only 16 per cent of the area and 0.7 per cent of the holdings was in holdings over 75 acres in size. Only in one of the five villages did absentee landowners own a considerable share of the land. Of the total land of the five villages only 15.5 per cent was owned by absentee landlords, 80 per cent was owned by resident villagers, and 4.5 per cent was communal land or state domain.

Palestine, by comparison with the other Middle East countries, does not suffer from the evils of absenteeism on a large scale. It is important to stress this point, because some Zionist writers paint a picture of Arab village life as a feudal society disintegrating into capitalist exploitation of the labourer by landowners, and that is a process which, in Palestine at least, is not present to any marked degree. It was the indifference of the Arab landlords rather than their exploitation of their tenants which permitted the purchase of land by the Jewish National Fund.¹

Now the sale of land to Jewish owners is controlled by the Land Transfers Regulations, which prohibit sale of land except to Arabs in Zone A (the greater part of the country), permit sale only in execution of a mortgage executed before 18 May 1939 in Zone B, and allow free sale only in a comparatively small area, covering the Haifa Bay district, the greater part of the coastal plain, an area south of Jaffa, and all municipal areas.

Some transfer of land contrary to the Regulations is said to be still in progress, by means of faked mortgages. There are now

¹ The long story of the attempt by the Jewish National Fund to evict the Arabs of the Malul district is told in the *Survey of Palestine*, pp. 299-308; twenty-four years after the purchase, their rights had still not been settled.

a number of land schemes sponsored by different Arab Governments and by organizations within Palestine designed to prevent further sales of land. Funds amounting to one million pounds have been received from the Government of Iraq, to be used to prevent further purchases, and it has been proposed to invest this in purchase of land for the Arab community in some form of inalienable village property such as *Waqf*. Thus the effect of Jewish immigration has been to make the Arab community more conscious of land-tenure problems.

As compared with other territories of the Middle East, ownership of land in the Arab villages in Palestine is much more equal and still retains traces of a communal village organization.

One of these is the division of the village into two areas, a winter crop zone, in which all cultivators sow a winter crop—wheat, barley, lentils, and kersenneh—and a summer crop zone where millet, sesame, vegetables, and melons are cultivated. In every village the winter crop zone and the summer crop zone are interchanged each year, the winter crop area of one year becoming the summer crop of the following year. The object of the division is to guard the crops from grazing animals. The animals graze freely in the stubble, and so neither area can be intermingled.¹ In this, as in fragmentation, the Arab agriculture of Palestine shows the same features as the 'open field' system prevalent in England in the Middle Ages, which still lingers in remote parts of Europe.

Another communal institution which lingers is the periodical re-allotment of land, to which reference was made in Chapter II. In many villages, the system of joint ownership known as *mushaa* is still practised. Under this system 'the village land is owned by large numbers of persons in undivided shares, the interest of each being expressed as a fraction of which the denominator may consist of, say, eight or ten figures, while the numerator represents the individual share. Periodically, usually every two years to suit the crop rotation, the elders of the village re-allot fresh pieces of land in satisfaction of a share.'²

Under this system no cultivator remains permanently in possession of any one piece of land. The object of the system of

¹ See *Palestine General Monthly Bulletin of Current Statistics*, December 1945, p. 750.
² *Ibid.*

ARAB LAND TENURE

re-allotting shares is to distribute good and bad land fairly, and the system continues because the peasants cannot reach any agreement as to how to equate the different categories of land.

In the last twenty years the custom of re-allotment has been falling into disuse, and it is now practised only on about a quarter of the land of Palestine. In some cases the practice has been abolished as a result of settlement of title to land, as this necessitates the registration of title to a definite area and leaves each cultivator in possession of a permanent holding.

Unfortunately settlement of title has proceeded slowly, as compared with Transjordan, and by the date of the arrival of the Royal Commission in 1936 only about 20 per cent of the land had been settled. Since then progress has been more rapid and by the end of 1946 a total of 4,808,458 dunums, out of a cultivated area of about 8 million dunums, had been settled. The delay has increased the difficulty of settling title; the *mushaa* system has lapsed, the fragmentation of holdings goes further, and the practical difficulties of settling the claims of a large number of small holders are much greater than the difficulties involved in settling a *mushaa* village, where it is possible to settle holdings in a few large pieces.

THE JEWISH SETTLEMENTS

The total land owned by Jews in Palestine at the end of 1945 amounted to 1,600,000 dunums (400,000 acres), or about 25 per cent of the total cultivated land. Some 900,000 dunums are held by various agencies, of which the most important is the Jewish National Fund, owning 660,000 dunums, mainly farmed in large communal or co-operative settlements. The remainder is in part unsettled land, or is farmed by individual farmers or small groups.

It is in the communal settlements that the most striking technical and social changes have been carried through. The productivity of the land is far higher than on the Arab farms: wheat yields are twice as high, and before the war income per head was five times higher. Farming is intensive, scientific, and mechanized; the system of land tenure is different, the settlements being organized as large units. They average about a thousand acres in size, and support an average population of

about 500 people, of whom about half are employed in agriculture. On the collective farms all operations are carried out jointly, and all workers change their jobs at intervals, supervised by experts permanently in charge of each section. Machinery and livestock are communally managed, so also are feeding, laundries, children, culture, indeed every aspect of life.

The co-operative farms, which tend to be somewhat larger in total area, are divided into individual households and small farms in which the farmer and his family live in small houses independently of the other members of the co-operative, and obtain the produce from the land and cattle allotted to them (5 to 12 acres is the usual range of their small holdings). Thus the farmer has some degree of freedom in his work on the farm; he is not, however, free to cultivate the soil as he chooses but must follow the cropping plan laid down; for all major farm operations he is dependent on the large machinery belonging to the settlement. Nor, of course, is he free to buy or sell individually; all produce bought and sold goes through *Tnuva*, the marketing organization for all Jewish settlements.

But in neither type does the farm unit operate independently. Much is made of the distinction between these two types of organization, but in fact there is little real difference between them, except in so far as the older generation, with some inclination to farming, prefers the small-holding co-operative, while the younger generation prefers the communal settlement. The settlers on the co-operative farms are considered to hold their farms on 49-year leases from the Jewish Agency, whereas the members of the collective farms appear to be workers only. But since the farmers on the co-operative settlements are not free to cultivate or invest or sell except as dictated from above, they are also in the position of workers in every important respect. Minor details of the farm operations are decided by a committee of the settlers, but every major decision as to production, technical methods of cultivation, and finance is taken by the experts of the Jewish Agency.

Even the most cursory inspection of the colonies controlled by the Jewish Agency shows that they are strikingly uniform in technical methods and equipment, and that their production is rigidly planned. They vary, of course, in the degree of specialization; the settlements on the coastal plain have specialized in

citrus growing on irrigated land, and use dairying and cereal growing only as supplementary to the main crop, while those of the Esdraelon valley are mixed farms, depending mainly on dairying, poultry, and cereal production, and producing citrus fruit only as a side line, since only part of the land is irrigated. But they all pursue the same methods of cultivation, using the same types of machinery and livestock and the same types of building. The Jewish settlements are in fact a dream fulfilled for planners, co-operators, scientific farmers, and so are often held up as a model for the development of the agriculture of Palestine and indeed for the whole Middle East, a model of what the Arab cultivators might achieve if they would adopt a similar system, instead of clinging to their backward methods.

But although their technical and social achievement is undeniably great, it is important to point out that from an economic standpoint they are not really a model, since they depend on the investment of very large capital resources, far beyond what can ever be made available to the Arab community. The investment per 'working place' in farming is estimated to be £700 (at pre-war values) and when it is remembered that the average income per head of the Arab cultivators was only £7 per annum before the war, it is clear that they will never be able to rival the equipment or methods of the settlements. It is this high amount of investment per head which enables the settlements to produce more to the acre, and to maintain a more or less European standard of life; and it is important to emphasize this point, since too much importance is often attributed to the actual scale of operation and the organization of production.

Although it is obvious that the size of the units and the internal organization of the farms must achieve some economies of large-scale production, it is not these economies which enable the farms to survive. The settlements are lavishly equipped with the most modern machinery, including combine harvesters. They carry a labour force which, with this amount of machinery, must be greatly in excess of labour requirements. In 1936 the total population on the farms amounted to 88,460, and had increased by 1945 to 152,800 (or 25 per cent of the total Jewish population of 579,000). This means that the amount of land per head was only $2\frac{1}{2}$ acres, and may be even

less, since not all of the 400,000 acres owned by Jewish settlements and farms is under cultivation. With such a large labour force and highly mechanized methods, it is difficult to see how the farms can provide full employment. During the war many settlements embarked on industrial production, such as jam manufacture, and so found additional employment for their younger generation.

So far as grain growing is concerned, there can be no doubt that the return from farming does not cover costs. By means of machinery and large-scale operation it is possible to raise the average yield of wheat to 8 hundredweight per acre, but even this is too low in relation to costs. With irrigation, the yield can be raised further to 12 hundredweight per acre. But irrigation greatly increases cost per acre: before the war, according to Dr Volcani, the cost of irrigation was as high as £28 per acre.¹ Obviously, with this high capital expenditure and comparatively low yield, the farms cannot compete in the world wheat market. Grain growing is therefore regarded as a subsidiary source of income, and the mixed farms obtain most of their income from dairy farming. Here too, the high cost of green fodder raises costs, and the farms depend on a protected market. The production of citrus fruit is the only branch which can compete in the world market, and even before the loss of the export market during the war, citrus fruit was unprofitable owing to the over production which prevailed in the nineteen-thirties.

No detailed analysis of the financial position of all the farms has ever been published. Some balance sheets are available for 17 settlements in the Haifa district, which were submitted to the Government during the war to justify continuation of the government subsidies. These figures showed that the average farm capital, excluding land, amounted to £P50 per acre, on non-irrigated land. They show, further, that the majority of these farms did not even cover capital expenditure or rent, and none were free from debt.

Another financial survey for the years 1940-3 was made for the sixteen communal settlements in the Galilee and Samaria districts.² These farms all covered current expenditure, but

¹ *The Fellah's Farm* (Tel-Aviv, 1930).

² See *Survey of Palestine*, chapter ix, pp. 384-6.

THE JEWISH SETTLEMENTS

about 30 per cent of their income was derived from non-agricultural activities, i.e., manufactures, which developed rapidly during the war period. The settlements of the Haifa district also derived about 20 per cent of their income from non-agricultural activities.

Thus it appears that the settlements are not financially independent and are not at present self-supporting units, or likely to become so. This is of course not a hostile criticism of the settlement policy, because its object is not to obtain profit, but to maintain the largest number of people in the land on a European standard. This policy inevitably means that investment is pushed beyond the limit which would bring a financial return. The aim of the settlements is not to achieve a return on capital, but to achieve intangible objectives, such as contact with the land, and the communal form of life. These are essential parts of the Zionist conception of the national home, and as such cannot be judged by any material or economic standards. Yet there seems something very unreal about a socialism so heavily subsidized, which does not contribute directly to raise the level of surrounding poverty. To the outside observer the life of the settlements looks sadly dated; it is an echo of Weimar Germany, of all that was modern the day before yesterday. It reflects a world that is gone, rather than a new life, and the sociological interest of the settlements seems to consist in their nostalgic preservation of that epoch of Europe's culture, rather than in any new evolution, since they are cut off from the life of the Arab world as well as from contemporary Europe.

One striking and undeniable social achievement of the farms is in the standard of health. The magnificent physique of the younger generation, by contrast with that of their parents, is a striking proof of the result of high consumption of food and particularly milk on the farms. The settlements have also contributed greatly to raising the nutritional level of the Jewish urban community. They now supply 34 per cent of the animal protein consumed by the Jewish urban population, 75 per cent of the vegetables and fresh fruit, and most of the milk. However, the Jewish community is by no means self-supporting, and relies for the bulk of its supplies of bread grain on Arab farm production: the Jewish settlements supply only 15 per cent of the total calorie intake of the Jewish urban population. Thus the Jewish

settlements play an essential part in the economy of the country in that they raise the standard of nutrition for the Jewish town dwellers and make European consumption habits possible.

Given this aim of maximizing employment on the land, the economists of the Jewish Agency have brilliantly succeeded in doing an uneconomic thing in the most economic way possible. But the fact that their objective is social and national rather than economic does mean that the settlements cannot really serve as a model for the Arab community. Their technical success is due to the financial resources at their disposal, rather than to the discovery of methods of cultivation which are specially suited to Middle East conditions, although their achievements in this direction are considerable. Owing to their limitation to individual settlements, they have not been able to undertake measures against soil erosion such as are urgently needed in Palestine, and which necessitate regional control of production.

Nor, of course, has the Arab community benefited from the higher standard of living on the farms, except very indirectly, since the leases of the Jewish National Fund make it a condition that the settlers employ only Jewish labour. This provision was intended to prevent the development of a class of Jewish employers exploiting colonial labour, and as such was wise, but it is unfortunate that no compromise has been found which would enable Arab communities to benefit more directly, and to accumulate some capital for investment in land improvement.

The danger at present is that the Arab cultivators may imitate some of the features of the settlements without scientific control. During the war Arab landowners and larger farms invested in tractors, and practised deep ploughing, and this has its dangers in that it enables landowners to exploit poorer cultivators by charging excessive rates for tractor work, and may have had bad effects from the standpoint of soil conservation.

In one important respect, however, the Jewish farms are a model, and this is the idea of the large colony based on irrigation. This is obviously the only system by which new areas, such as for instance the Jezira region in Syria and many parts of Iraq, can be developed and settled in a way which is consistent with social advance. The question is whether the Arab community,

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still so close to its earlier collective organization, is likely to evolve towards this type of organization; in Palestine the Jewish settlements have tended to strengthen the national consciousness of the Arabs while benefiting by the individualistic tendencies of the landowners.

WATER-RIGHTS

There are defects in the Arab system of tenure, but they are only one cause, among many, of the poverty of the country. There are other and greater obstacles: the lack of all round measures to promote soil conservation and afforestation, to restrain goats grazing, to develop irrigation. The lack is in the main due to the division of the economy into two sectors, not to government inefficiency, for Palestine undoubtedly has the most efficient administration in the Middle East.

The lack of adequate legislation on water-rights is one great obstacle to advance. The law governing the use of water at present in force in Palestine, which was inherited with the rest of the Ottoman Civil and Land Code, is not only inadequate but also very confused. Water-rights are regarded as the personal property of individuals and not as annexed to the land to which they should naturally appertain. Water-rights can, therefore, be the subject of commercial transactions, apart from the land: a man may sell half his land and the whole of his water-rights or he may retain the whole of his land and sell half his water-rights. Thus it is possible for speculators who own no land at all in a district to buy up the water-rights in an area and farm them out to the highest bidder. Rich landowners are enabled to acquire more water than they need for their own land and so can force their poorer neighbours to sell land. This leads to chaos in the disposal of property. It is also an impediment to the regulation of irrigation under State control since it means that the Government cannot acquire water-rights and cannot acquire the right to surplus water, since the amounts of water to be taken by each individual have not been legally settled.

Without a settlement of water-rights there can be no rational development of the water for surface purposes. The Government cannot deal effectively with irrigation until its own rights are clear. In the Jericho irrigated area, for instance, the

Government cannot get control of the water for an irrigation scheme because the water-rights are owned by Arab sheikhs who do not own the land.

Legislation has been drafted already which would rectify the position by

1. vesting the ownership of water in the owner of the land;
2. vesting the ownership of any surplus water in the State.

This new legislation, the Irrigation (Surface Water) Ordinance, 1941, was published in draft form in the *Palestine Gazette* on 9 April 1942. The main object of the Ordinance was to annex water-rights to the land to which they should naturally appertain, and to reserve the right of ownership to the Government.

If this legislation were enacted, it would be possible to initiate a government policy for the development of water resources. The aim of this policy should be to appoint a Water Settlement Officer in each area who would investigate rights in his own area. When it was proved that any particular piece of land held a right to water, the quantity could be established and rights definitely attached to the title deed of the land. The Government could then utilize the surplus and might, among other things, design a scheme for lining irrigation channels which would save about one-third of the water which is at present washed away, and which could, if saved, be sold to neighbouring farmers.

No policy, however, can be formulated owing to the lack of a proper legal basis. The Ordinance has not been enacted owing to opposition from local interests. This opposition arises, because it is hoped

1. to defeat the purpose of the Land Transfers Regulations by Jews buying the water (without which the land is useless) from Arabs in the forbidden zones;

2. to utilize the uncertainty of the legal position to complete the acquisition of water-rights by purchase and trespass before the rights are judicially settled under the Ordinance.

A similar Ordinance has been passed to deal with underground waters, but is also held up for the same reason.

Chapter V
TRANSJORDAN

LAND AND POPULATION

THE desert still plays a great part in the economic life of Transjordan; the cultivable area is only a narrow strip of land between the Jordan Valley and the Hejaz railway. The following table shows the area of cultivation and the semi-arid land bordering on the desert where crops can be grown in years of good rainfall.

LAND UTILIZATION IN TRANSJORDAN, 1939¹

A.	<i>Cultivated Zone</i>	<i>Dunums</i>	<i>Acres</i>
1.	Irrigated	260,000	64,000
2.	Vineyards	80,000	19,700
3.	Rain-fed Cereals	4,150,000	1,013,000
4.	Uncultivated Land including Forest	2,800,000	691,000
5.	The Shera (district round Petra)	440,000	108,700
TOTAL		7,730,000	1,896,400
B. Land Bordering the Eastern Desert and Land of the Jordan Valley slopes		2,270,000	543,600
TOTAL		10,000,000	2,440,000

The cultivated area includes the irrigated land, vineyards, and the rain-fed cereals land, which total 1,096,700 acres. On this area there lives a population of some 350,000 to 400,000, of which about 300,000 may be assumed to be dependent on agriculture. The area of land per head is therefore about 4 acres, and is larger than in Arab villages in Palestine. Owing to the lower rainfall, the system of farming is less intensive than on Arab land in Palestine, the rotation being either wheat alternating with fallow, or wheat, barley, fallow. Yields of grain are about the same as on Arab land in Palestine, averaging 3–6 hundredweights per acre.

The possibilities of agricultural expansion are mainly concerned with the extension of the area to be cultivated. On this point there is considerable difference of opinion. The *Report on the Water Resources of Transjordan and their Development*,² argues

¹ *Palestine Partition Commission Report*, p. 64.

² M. G. Ionides (London, Crown Agents for the Colonies, 1940).

that there is no great prospect of extending the area cultivated. At present all the cultivated area lies in the north-east of the country, in the region which has more than the 8 inches rainfall minimum within which dry farming is possible. The area with rainfall above the minimum is 9,061 square kilometres: but only half of this area is cultivable, the rest being denuded hill-side, rocky outcrop, forest or scrub; so that out of a total area of 8,800,000 dunums with adequate rainfall only some 4,400,000 (or 1,100,000 acres) can be cultivated. Thus, according to this authority, cultivation is already pushed out to the rainfall margin.

However, in the opinion of Dr Morgan, an American expert who visited Transjordan in 1942, there is a large area of cultivable land south-east of Amman between Sahb and Muwaqqar, which could be developed by tractors. Most of this region has only been taken into cultivation since the first world war and it is still very sparsely settled. There are no records of rainfall in this region which would serve as a basis for deciding whether cultivation could be extended here; which suggests that an experimental station like that now working in the Beersheba district of Palestine might be set up with advantage.

The possibilities of development of irrigation mainly concern the Jordan Valley, where there might be rapid and comparatively cheap small extensions by government projects. These schemes would involve better control of existing schemes in the Jordan Valley, and the construction of a new canal from the Yarmuk river; they would be capable of increasing the present area irrigated by some 60,000 dunums (15,000 acres).

Soil conservation is now a very serious problem, as erosion has reduced the soil to its lowest level. Measures have been taken to prevent excessive grazing by fencing in two large areas in the semi-arid zone, to allow natural vegetation to recover. The successful settlement of title described below favours this kind of development, as forest land becomes State property when title to land is settled. About half a million dunums (125,000 acres) have come into government ownership in this way.

In the region north of Amman, the Ajlun liwa, there is already some shortage of land which is likely to increase with the present rapid growth of population. This problem might be met

LAND AND POPULATION

by resettlement of cultivators in the comparatively sparsely populated south, but here the vacant land is subject to claims by the tribes, such as the Howeitat, who have been dying out in recent years as a result of the decline in the camel trade, but who would none the less oppose any infringement of their claims. Hence land shortage is likely to become a problem in the future as population grows.

Farm holdings are small, averaging 50 dunums (12 acres) in the northern half of the cultivated region; they are somewhat larger in the more arid south. In the south the large landowners are still semi-tribal sheikhs living in strongholds, whose vast stables have been depleted of cattle and camels by their habits of excessive hospitality. In the district north of Amman the small peasant cultivators predominate, and the city notable money-lender class plays little part. Since there are no wealthy townspeople, purchasers of land come from outside; during the late war much land has changed hands at high prices, mainly to speculators from Damascus; but the Transjordan villagers are a harder proposition than the Syrians, and attempts to collect rent are resisted with violence.

In the north the *mushaa* system has prevailed until very recently, but has now largely been abolished as settlement of title has progressed rapidly and covered most of the area of the country where the *mushaa* system existed hitherto.

SETTLEMENT OF TITLE

Settlement of title has proceeded more rapidly and efficiently and given more satisfaction than it has in any other territory of the Middle East. Up to the end of 1943 title had been settled on more than three-quarters of the cultivated land (3·8 million dunums out of a total cultivable area of 4·4 million).

Its chief result has been to abolish the *mushaa* custom. In *mushaa* villages the procedure of settlement is comparatively easy, since it is a matter first of establishing claims to shares, and then dividing the land into holdings to fit the shares. This was an easier matter than establishing claims to land where partition had already occurred, and where disputes rage round boundaries and claims to very small holdings. The advantages of land settlement in Transjordan are summarized by Mr Walpole (Director of Lands in Transjordan) as follows:

'The positive achievements of land settlement are.

'1. Absolute security of tenure is ensured. The landowner is now in a position to develop his land and foster its fertility with the full assurance that, other things being equal, he will obtain the benefit of an increased yield and enhanced value. In every settled village there are signs of development. Stones are being removed from the surface and either collected into heaps or used for building boundary walls, terracing of slopes is occasionally carried out and in some places wadis are plugged with loose stone to reduce the velocity of floods.

'2. The partition of *mushaa* lands . . .

'3. The Land Tax Law enacted in 1933 succeeded in abolishing all the greater anomalies of distribution as between villages, while the fiscal survey had put the land valuation on a sound and equitable basis. Land settlement, however, carried out the final reform by assessing the tax on the value of the plot. Landowners now pay land tax on the basis of the capital value of their holdings and not on the somewhat biased ideas of a village distribution committee.

'4. Finally the Land Registries were reformed and a new method of land registration was put into effect . . .

'The State also derives positive advantages from land settlement . . . All forests are demarcated and registered in the name of the Government . . . Encroachments and damage to forests can now be easily detected and the offenders prosecuted; there can no longer be any evasion of the law on the grounds of uncertain ownership and ill-defined boundaries . . .

'Settlement in the 'Ajlun Liwa, the northern province of Transjordan, was practically completed in 1938. The Liwa contains some 219 villages most of whom were *mushaa* and it is the richest and most densely populated province in the Amirate. Comparison of the two quinquennial periods before and after settlement show that there has been an overall decrease in crimes of violence of 29 per cent in the period after settlement. Statistics are notoriously susceptible to bias, but nevertheless a *prima facie* case would appear to have been made out in favour of land settlement as perhaps the primary contribution to this satisfactory state of affairs, since no other important economic or social reform has been carried out in the meantime.'¹

¹ See paper by Mr G. F. Walpole on 'Land Settlement in Transjordan' in *Proceedings of the Conference on Middle East Agricultural Development*, pp. 164-5.

SETTLEMENT OF TITLE

One unfavourable result of settlement, however, is that it facilitates the sale of land to large landowners, since it permits town merchants to acquire land with their accumulated war profits, and so break into the tribal society with no other pretext than finding a safe investment. A case is reported, for instance, in the district south of Amman, where land belonging to the Beni Sukhr tribe has been purchased by a Beirut merchant. Up to the present, however, the merchant has not been able to take possession of his land owing to the hostility of the tribe and is in the position of paying land-tax without having so far extorted any rents from his tenants. The tribe is united enough to prevent this, but has not been sufficiently united to prevent the sale of land. In this special case the land was obtained from the tribe by trickery. In the case of forced sales of land in communal villages the Ottoman Law recognized a right of prior purchase of land by co-heirs (or by neighbours). This right is no longer binding as it was in the time of the Ottoman Code, but can be applied by the land-settlement judge if necessary. In the case referred to the Beni Sukhr were not aware of the existence of this right and so allowed the purchase of land to occur. This is an instance of how necessary it is to preserve the legal basis of tribal ownership.

WATER-RIGHTS

As in Palestine, the law controlling water-rights is unsatisfactory and a law was prepared in 1938 which would tie water to the land to which it appertains, and reserve surplus water for the Government.

Although this law in draft form has been before the Transjordan Government for nearly five years, no action has been taken as yet to obtain its enforcement by the Legislative Assembly. There are many serious disputes in connection with water distribution in streams, especially those irrigating the Jordan Valley; all attempts at an equitable settlement of these disputes with the machinery available have failed, and will continue to fail until a water law has been added to the laws of the country.

ADMINISTRATION

At the same time as the title of land was settled, the land was surveyed, and the fact that survey, registration, and settlement

have proceeded *pari passu* and under the same department greatly increases the efficiency and rapidity of the work. (In Palestine and Iraq the work is performed by separate departments, with considerable loss of efficiency. Sir Ernest Dowson, the chief authority on land settlement in these countries, always strongly recommended unification of these departments.)

It is important to note that some of the benefits of land reform have been achieved by weakening the power of the village sheikhs or headmen; in particular the tax reform will serve to weaken their power. Neither in Iraq nor in Palestine has settlement of title been accompanied by a similar reform of the tax system.

Although, of course, it must be remembered that the problems of settlement are comparatively easy in Transjordan, the Department of Lands has a much greater achievement to its credit than any other land department in these territories. The problem of establishing a satisfactory system of land tenure has been solved on the basis of individual ownership. But two circumstances have favoured this, which are not present elsewhere; one, that Transjordan was heavily subsidized by Great Britain and so British administration could work on paternal lines; the other that the landlord moneylenders have been comparatively unimportant, though war profits and inflation have brought them into the village scene.

Chapter VI
SYRIA AND LEBANON

LAND AND POPULATION

At first sight, the main crop of Syria appears to be thistles, and so it is in fact: about half the land is under fallow every year, and the cultivated land is cropped only one year in two or even three. There are some districts with intensive cultivation, for instance, the oasis of Damascus, with its brilliant green crops irrigated by 'Abana and Pharphar'; but most of Syria is cultivated very extensively indeed.

In Syria and Lebanon together the area cultivated before the late war was some 5.8 million acres, but of this total only 3,900,000 acres were cropped each year, the remainder being fallow. The greater part of the cropped area was under cereals, about two-thirds being under wheat and one-third under barley.

In Lebanon, the whole of the cultivated area is cropped, and there is no uncultivated land which could be brought into cultivation. In Syria however there are large areas of cultivable land which are not at present cultivated, the total cultivable area being some 12½ million acres, of which only about one-third is under cultivation. Unfortunately this figure is only a rough estimate, and it is not clear how much of the area is cultivable under present conditions, or how much of it is marginal desert grazing. Some of it is undoubtedly cultivable under present conditions, and there is certainly no shortage of land in Syria.

SYRIA· AGRICULTURAL LAND, 1943¹

<i>Province</i>	<i>Cultivable</i>	<i>Cultivated</i>
	<i>Acres</i>	<i>(including fallow)</i> <i>Acres</i>
Jezira	2,471,000	543,600
Euphrates	3,212,000	321,200
Aleppo	3,706,000	1,260,000
Homs	420,000	345,900
Hama .	1,309,000	1,210,000
Damascus	1,062,000	345,900
Hauran	518,600	518,900
TOTAL	12,698,600	4,545,500

¹ Omitting the provinces of Latakia and Jebel ed Druz for which no figures are available; their cultivated area may be estimated at about half a million acres

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During the recent war there was an expansion of cultivation in Syria as a result of high prices and mechanization. The previous table shows the cultivable and cultivated land in different provinces and the distribution of these areas in 1943.

Little is known about the rate of population growth, but it is believed to be rapid. According to the most recent estimates the total in 1944 was 3,987,012, of which the population of Syria was 2,860,411 and of the Lebanon 1,126,600. The population of Syria was divided as follows:

SYRIA POPULATION AT END OF 1943

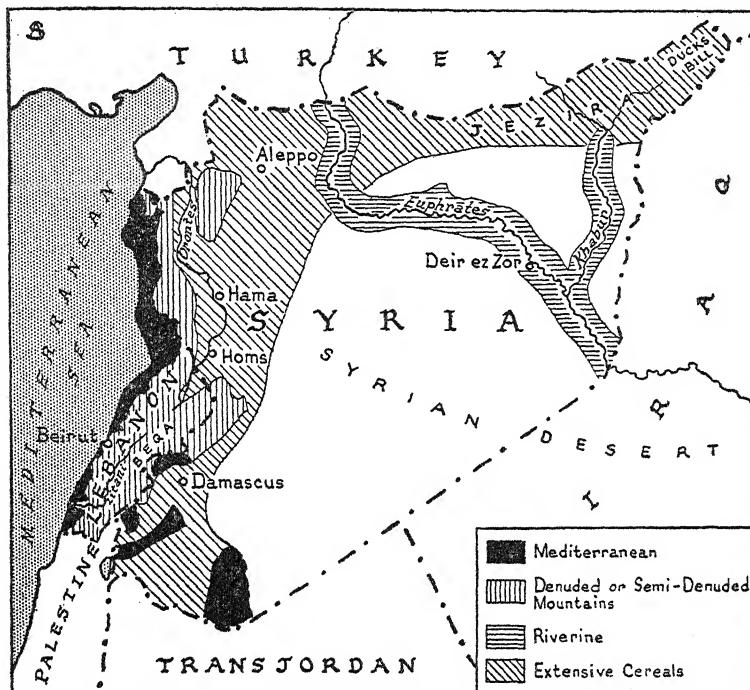
Province	Total
Latakia	452,507
Aleppo	870,139
Hama	157,458
Homs	212,424
Hauran	112,842
Damascus	603,889
Euphrates	225,023
Jezira	146,001
Jebel ed Druz	80,128
 TOTAL	 2,860,411

(This estimate excludes the Beduins, whose number is estimated at 400,000.)

About three-quarters of this total, or about 2·1 million, are rural. The amount of cultivated land per head is $2\frac{1}{2}$ acres, but because cultivation is so extensive the area actually cropped is only some $1\frac{1}{2}$ acres.

Lebanon, by contrast with the dry plains of Syria, is intensively cultivated because of the high rainfall on the coast line; yields per acre are higher, and crops are more diversified, including citrus, olives, bananas; small irrigation schemes have been developed along the coast on the streams from the Mountain. The Lebanon depends for part of its grain supply on Syria, and all the cultivated land is cropped. The cultivated area in 1943 amounted to 1·3 million acres. The total population in 1944 was estimated to be 1,126,600; of this probably about 750,000 are rural, and the amount of cultivated land is about $1\frac{1}{2}$ acres per head.

Grain production in Syria and Lebanon together before 1939 averaged 800,000 tons and rose to about 1 million tons during the recent war.



SYRIA AND LEBANON: AGRICULTURAL AREAS

GRAIN PRODUCTION IN SYRIA AND LEBANON, 1934-43

Wheat

				Tons	Cwts per acre
1934	..	..	..	443,000	6.3
1935	..	..	..	504,000	7.5
1936	..	..	..	427,000	6.3
1937	..	..	..	468,800	6.6
1938	..	..	..	644,300	9.0
1943	..	..	..	624,280	7.3

Barley

				Tons	Cwts per acre
1934	..	..	..	292,100	7.8
1935	..	..	..	347,100	9.5
1936	..	..	..	308,100	8.2
1937	..	..	..	266,300	6.5
1938	..	..	..	383,400	9.0
1943	..	..	..	330,485	8.2

With a total rural population of about 2.8 million in 1943-4, the production of grain per head amounts to only 3.4 quintals or 6.4 hundredweights. Thus the problem for Syria is to in-

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crease the productivity per acre and also to expand the cultivated area per head.

In the Lebanon, however, with its steep hillsides under intensive cultivation, there is a definite pressure on land resources. The limits of intensification appear to have been reached, and a large part of the village population supplements its income by work in the towns, and by remittances from abroad. If the land tenure system in Syria were less oppressive, room might be found on the land for settlers from the Lebanon, but as things are, the standard of living and status of the Lebanese peasant is higher; compared with the Syrian peasant he is a free man, and there is no inducement to leave the Mountain for the under-populated plains of central or northern Syria.

LAND TENURE

Corresponding to these different methods of farming, there are different systems of land tenure.¹ In Lebanon individual small ownership is well established, and the pattern of village life, with its broad class of small peasant owners, few large farmers, and a growing class of landless labourers, resembles that of Europe.

In Syria, the greater part of the land is owned by city notables—the ruling class—and cultivated by small share-tenants. Though individual ownership exists in some districts, for instance the Beqa Valley and the oasis of Damascus, the most usual form of landownership in the plain districts of Syria is share-tenancy. The villagers bring their corn to the village threshing floor, and when the grain is threshed the landlord or his agent stands by and takes one-half of the grain. Towards this result he has contributed nothing; all labour, equipment, seeds, livestock, have been supplied by the tenant, so that his share is rent purely for the use of the land. The landlord is almost always an absentee, a city notable who only visits the land to collect rent.

The share taken by the landlord varies from district to district, and also varies with the condition of the land. According to an inquiry made by the French authorities, the usual division of the crop for non-irrigated cereals is 40–50 per cent to the

¹ The information which follows is mainly based on A. Latron, *La Vie rurale en Syrie et au Liban* (Beirut, L'Institut Français de Damas, 1936). The brilliant and profound study by Jacques Weulersse, *Paysans de Syrie et du Proche-Orient*, is an indispensable authority which unfortunately was received only after going to press.

LAND TENURE

landlord, and 60-50 per cent to the peasant. The landlord's only charge is taxes. If, as in some districts, the tenant provides labour only, and the landowner bears other costs, the landowner's share may rise to 80 per cent. For irrigated cereals, the landlord's duty is to provide water, and his share of the crop is then 60 per cent. Other irrigated crops are usually farmed by the landowner direct.

The tenant has no protection against eviction because these tenancy agreements have no legal basis, and are not covered by the provisions of the Ottoman Land Code. The tenant may be evicted by the landlord without notice, and no compensation is paid him for improvements made or for losses incurred when he is evicted.

How much of the land is owned by large proprietors in Syria is not exactly known. Roughly one-half of the grain sold in the market comes from large proprietors, and it is believed that about 60 per cent of the land is owned by them. In northern Syria, big landowners own 70-80 per cent of the land, and in the Damascus region 60-75 per cent. In the district of Hama, out of 114 villages, 110 belong to landlords, and 4 landowners between them own 86 villages. Generally there is a great desire on the part of the peasants for individual ownership, but it is only where there is some form of intensive cultivation that it can be successfully maintained. In the village of Kesruwan, for example, banana growing has brought prosperity to the peasants and enabled them to purchase land.

Thus the custom of share-cropping reflects the instability of grain growing in arid climates with uncertain rainfall and great variations in yields. It is peasant indebtedness which supports the large landowners. Two bad harvests in succession will mean that the peasants become so much indebted that they will actually reduce the area sown for lack of seed, and will therefore be obliged to sell to a money-lender or city merchant. The majority of the big Christian merchants in the town have become rural landowners in this way, particularly in Latakia and round Homs and Hama. In the Syrian plain districts, entire villages have passed into the hands of merchants through indebtedness.

Most of these large landowners are city families, who take no interest whatsoever in actual methods of cultivation. Some,

probably few, of the estates are the properties of old, wealthy families of Ottoman times, which still exist in Lebanon, such as the lands belonging to the families of Arslan, Jumblatt, Chehab, Khazen, but many of these have been broken up by the Moslem laws of inheritance. Other estates have originated from direct grants made by Turkish Sultans to influential politicians, as for example the two very large estates in the Beqa and the Litani valley. Others too were formed at the time of the general registration of property undertaken by the Ottoman Government when chiefs of tribes or villages registered tribal land in their names as their private property. Uncertainty about legal title to land gives the educated classes frequent opportunity for ousting peasant owners, and whole villages have come into the possession of rival groups of city notables, as a result of litigation among the villagers who have sought their assistance in establishing their title.

While the land-tenure system is thus a result of peasant poverty, it also perpetuates poverty by standing in the way of any long-term investment. The high percentage of fallow in Syria suggests a great waste of land resources, and there could certainly be some improvement in yields, even in dry land farming, if green crops were introduced more generally into the rotation. But the share-cropper has little incentive to improve the fertility of the land, since he has no certainty of tenure, and since the landlord will take 50 per cent of any increase. Since the landlords are not as a rule directly interested in farming, they do not themselves undertake long-term improvements in the land.

Three case studies illustrate the ways in which the land-tenure system hinders advance.¹

One study relates to the large estate of Misherfe, near Homs in central Syria. This is 24,000 acres in extent and includes five villages, with 2,500 inhabitants. It is very extensively cultivated, only one-third of the area, 8,000 acres, being cropped each year. The land is divided into three parts, one with wheat, barley or *qatani* (mixed grain), one ploughed but not sown, and one left fallow. A small area, 200 acres only, is irrigated, though water supplies are sufficient to irrigate much larger areas.

¹ These studies, which were prepared for the M.E.S.C., are not at present available in print.

Wheat yields are lower than the average for Syria, averaging 4 hundredweight to the acre.

Almost the whole of the estate is let to share-tenants who are supervised by an agent, the landowners themselves rarely visiting the estate. The share of the crop taken by the landlord is 25 per cent on non-irrigated land and 42½ per cent on irrigated land. These shares are more favourable to the tenant than is usual, because it is desired to attract more labour to the estate which sixty years ago was quite uncultivated. As elsewhere, the tenants have no leases but live in fear of eviction.

The tenants are divided into five classes:¹

1. Large tenants cultivating 6 feddans (225 acres) of non-irrigated land: 4 in number.
2. Medium sized tenants cultivating 4½ feddans (168½ acres): 4 in number.
3. Small tenants cultivating 3 feddans (112½ acres): 60 in number.
4. Small tenants cultivating irrigated land and with an average area of 18 acres: 100 in number.
5. Wage labourers, who form the majority of the villagers.

Of these classes, only the small groups of large and medium-sized tenants can live well, in the sense that the output of the farm suffices to cover the essential needs of the family and also provides a small cash surplus. The surplus is used to buy gold pounds and jewellery. But the other groups cannot achieve even a sufficient standard of food consumption. The standard consumption of wheat (barley in the case of the very poor peasants) is 14 kilogrammes of grain per month; to achieve this level it is necessary to crop about 45 acres. Thus with the present system of cultivation, the class of small tenants, who cultivate an area of 112 acres and would appear to have quite sufficient land, cannot attain the minimum because only one-third, 35 acres, can be cultivated owing to shortage of live-stock.

These small tenants, who are typical of the farmers in the great plains of Syria, are very poor, living in one- or two-roomed mud huts, and when there is only one room, sharing it with

¹ It must be said that the feddan in Syria is a variable measure and here is equivalent to 37½ acres.

their animals. Malaria is prevalent. The majority are heavily indebted. The tenants on the irrigated land, with an average holding of 18 acres, are also poor but less heavily indebted, because they can depend on a more regular income.

The poorest class are the landless labourers whose income in money and kind amounts to 530 Syrian pounds a year (1944) (£10 at 1939 prices).¹ This is a starvation wage, which means that they can only eat enough in harvest time, and in winter must subsist on maize, bread, and grass.

The poverty on this estate is therefore a result of the low productivity and the low proportion of the area under cultivation. One way of increasing the area cultivated would be by the use of machinery. Tractors were introduced some fifteen years ago, but proved too costly in relation to the low prices of Syrian grain; owing to lack of skilled drivers and proper maintenance they fell into disrepair. During the late war, however, as the price of grain rose, tractors were again used by some tenants who hired them from neighbouring estates.

Another way of raising production would be to increase irrigation since there is sufficient water to supply much more land. In this respect the estate is typical of the whole Homs-Hama plain, where much of the water which the French authorities have made available by irrigation goes to waste.

On this estate, therefore, the poverty of the cultivators is due to the landowner's failure to increase the productivity of the soil, rather than to his exploitation of the peasants; compared with other estates, this one is socially progressive, since the landowner's family have set up a school and also distribute medicines free of charge.

The second study covers a more intensively cultivated village, Ashrafie, on the borders of the irrigated district of Damascus. Less heavily supplied with water than El Ghuta itself, Ashrafie has sufficient water to irrigate 10 per cent of the total land. The total area is 1,600 hectares or 4,000 acres, of which 2,400 are owned by four estate owners and the rest by peasants. The largest landowner is an absentee, letting his land on a 50 per cent share-tenancy basis, with definite three-year leases (by contrast with the usual custom under which the tenant has no lease).

¹ This is calculated on a rate of 9 Syrian pounds to £1, allowing for a six-fold increase in the Syrian cost of living between 1939 and 1944.

LAND TENURE

Of the total 160 families in the village, 100 own some land and 60 own no land. The peasant owners are divided as follows

1. Rich farmers, owning about 10 hectares . . .	5 families
2. Medium farmers, owning from 3 to 8 hectares . . .	80 "
3. Poor farmers, owning between 1 and 3 hectares . . .	15 "
4. Share-tenants . . .	10 "
5. Labourers . . .	50 "

As in Misherfe, two-thirds of the land is uncropped each year. The peasant divides the land into three plots, one sown with a crop, one ploughed but not sown, and one fallow. The wheat yield is slightly higher than the average for Syria, and amounts to 833 kilogrammes per hectare (6½ hundredweight per acre); barley yields are also slightly higher, being 8 hundredweight to the acre.

As a result of the more equal distribution of land, rather better yields, and more irrigation, the standard of living is better than in Misherfe. The first two classes, including half the families, can reach an adequate standard of consumption of food and other essentials, which is reckoned to be 25 kilogrammes of wheat per month, 1 kilogramme of meat per month (i.e. one sheep a year), 40 kilogrammes of olive oil and 20 kilogrammes of 'samn' per year, 4 tins of kerosene and a small quantity of clothing. The remainder of the village, about one-half of the total, that is the poor peasants, labourers, and share-tenants, are unable to reach this standard and live in great poverty, in one-roomed huts. The majority of these cultivators are heavily indebted, and the burden of indebtedness has doubled during the war years, because debts are usually incurred in gold.

The third study relates to Kfer Sa'ab in the north Lebanon, a hill village of small owner-cultivators. Of the total area of 200 hectares, about 30 are owned by the sheikh of the village. The total number of families is 150 (1,200 people), of which 120 own land and 30 are landless. A few peasant owners are rich with 5 hectares of land; 60 are medium owners with 1.5 to 2.5 hectares of land, and 25 own 0.5 to 1.5. Here cultivation is much more intensive than in Syria, and half the land is

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irrigated. The whole of the land is cultivated every year, the rotation being wheat followed by potatoes, the potato crop being irrigated. The wheat yield is below the average for Syria, amounting to 6 hundredweight per acre, and the potato yield is 5 hundredweight per acre.

However, in spite of the greater intensity of cultivation, the shortage of land means that the majority of the peasants are not able to attain an adequate standard of living, measured in terms of a few essential commodities: 20 kilogrammes of wheat and 4 kilogrammes of meat per head per month, 100 kilogrammes of olive oil per annum, and 5 tins of kerosene. To attain this standard a family must own 3 hectares of land, and as only the rich peasants and a few of the medium peasants own so much, the majority of the medium peasants and the poor landless peasants do not achieve it. The majority of these supplement their income by remittances from their emigrant relations abroad. Those who have no income from abroad leave the village to work as unskilled workers or servants in the towns.

In this village, therefore, the cause of poverty is the shortage of land, since the land is much more equally distributed than in Syria and the system fairly intensive. Living conditions are far better than in Syria: the majority inhabit stone houses with two or more rooms. The richer peasants are also more sophisticated than those of Syria, preferring to gamble their money away in the neighbouring summer resorts rather than spend it on jewellery.

From these three studies three conclusions emerge. The first is that a higher income per acre depends on irrigation, since the net income from irrigated land is two or three times as high as from non-irrigated land.

INCOME PER HECTARE ON IRRIGATED AND NON-IRRIGATED LAND (in Syrian Pounds)

		<i>Ashrafe</i>		<i>Misherfe</i>		<i>Kfer Sa'ab</i>
		<i>Non-Irrigated</i>	<i>Irrigated</i>	<i>Non-Irrigated</i>	<i>Irrigated</i>	<i>Half-Irrigated</i>
Gross Income	..	352	887	218	633	879
Costs	..	118	247	75	96	246
Rent	..	—	—	59	304	—
Net Income	..	<u>234</u>	<u>640</u>	<u>84</u>	<u>233</u>	<u>633</u>

LAND TENURE

There are some possibilities of raising yields in dry farming, but they are limited, and the main hope for increasing farm incomes is a better use of water supplies.

The second conclusion is that in every district half or more than half of the population live in extreme poverty, due to the low proportion of land cultivated, low yields, and the unequal distribution of land. In Lebanon, surplus rural population is the major cause of poverty. There is no motive-power making for progress: even richer peasants do not invest, but spend unproductively: the landlords are pure rent-receivers: and the poorer peasants are entangled in a network of debt without hope of escape.

FRENCH LAND POLICY

In regard to the *mushaa* system, which was widely prevalent at the time the French took over, the French authorities have hastened the process of disintegration. By decrees passed in 1925 and 1926 the periodical re-allotment of holdings (i.e., the *mushaa* custom) was forbidden. Since the work of survey and settlement did not keep pace with the legislative enactment, this law meant an abrupt interference with village custom which contributed to agrarian unrest, particularly in the Hauran, where the *mushaa* custom was general. It appears to have been largely disregarded, and not to have been put into force by the Bureau de Cadastre (the French Survey Office, which is a private concession and not a government department), which undertook the work of land settlement.

M. Duraffourd, the Director of the Bureau de Cadastre, considered that the *mushaa* custom had a real basis in the social life of the country and should not be abolished. Moreover it had often happened in Turkish times that title to land had been granted in divided holdings, but the titles were disregarded by the occupiers of the land, who continued to exchange their shares as before. The Bureau de Cadastre, therefore, when establishing title to land in a *mushaa* village have followed the practice of registering each villager's share in the land as a fraction of the total area, without attaching the title to any specific piece of land. This method tends to preserve the *mushaa* system. When title is registered to definite pieces of land, the Bureau de Cadastre have attempted in some cases to re-group the holdings

into single units, to form individual farms; but shortage of money limited this process to about 50,000 acres.

About half the area of Syria has been surveyed and title registered by the Bureau de Cadastre. As in Palestine, political unrest made it impossible to survey and register some districts, in particular the Hauran and the Jezira. With this limitation the work of the department appears to have been successful.

Water-Rights. One of the great obstacles to carrying out large-scale irrigation schemes is the confusion which prevails about water-rights. According to an unpublished report prepared for M.E.S.C. in 1943 by Professor Addison, one important scheme, the Yamunne project, could not be initiated, because the complicated question of water-rights had not been settled. Since any big advance in agriculture really depends on irrigation, a settlement of water-rights is essential.

The French authorities have apparently been no more successful in dealing with this question than the British authorities in Palestine and Transjordan. A decree was issued by the High Commissioner in June 1925 nationalizing the water supply, and making all sources of water and water-courses public property; but a further decree in 1926 weakened this wise measure, permitting temporary occupation of water-rights for forty years, so that the result of the legislation has been to increase the confusion.

Control of Irrigation. There is no uniformity of procedure in controlling irrigation schemes, and no central authority controlling irrigation. There are three chief methods of control quite unrelated to each other. These are:

1. The village community in which water-rights are regulated by custom. This appears to be the prevalent method of control in all the village irrigation schemes, of which there are a very large number. Several villages may share in these schemes, and the distribution of water is established between them by custom, and administered by the village authorities. Each owner of land can claim a share in the total water supply measured as a unit of time, for example, one hour every seven days. This method is beginning to prove unsatisfactory. The big owners almost always control the best

FRENCH LAND POLICY

irrigated land, and village chiefs can frequently be bribed to leave open irrigation ditches so that their land is better watered. This frequently happens, for example, in the Ghuta of Damascus, where there is no unified plan for the irrigation of the district and no authority which can enforce the customary rights.

2. The system under which water is owned collectively, or as *Waqf*, in the northern Beqa.

3. Private ownership by large landowners. This is usual in the Lebanon where there are a number of small private schemes.

These methods of control apply to the smaller schemes. Large-scale schemes have been operated either by:

1. Private concession. Only one relatively large-scale concession is actually in operation, the Nahr Ibrahim (Adonis) scheme.
2. The State. State-controlled works have been carried out by
 - (i) authorities directly under the control of the French authorities;
 - (ii) authorities directly under the control of the Lebanese Public Works Ministry;
 - (iii) Lebanese or Syrian authorities under the control of the *Délégation Générale*.

There is great need of a central authority to co-ordinate the supply of water. In the south Beqa, for instance, much irrigable land is left unirrigated and much water allowed to run to waste for lack of such an authority.

State Land. One of the main reasons for the lack of intensive cultivation in central Syria is that the State lands have never been systematically settled. Very large areas are State domain, that is, land registered as the property of the Turkish Sultan, Abdul Hamid. Under the mandate, this land became the property of the local government. Under the Turks these lands were used for the 'displaced persons' of the old Empire, who were driven out when Turkish territory was lost, but they were still sparsely settled when the French took over.

After the rising of 1925 the French authorities began to settle

the land. In 1926-31, 182 villages comprising 181,000 hectares were colonized in small properties by 6,000 families. The Government of Latakia compelled large proprietors in the region of Homs to give up their villages in the district of Masyaf in 1929; the land was distributed among the occupying peasants and sold to them at a price to be paid for in ten annual instalments. The village of Jib Ramle was also settled in 1929, in part by occupying peasants, in part by refugee Armenians.

But the French administration did not complete the settlement of these areas. In some regions the Turks settled these lands with nomad tribes, who were themselves averse to cultivation and either rented the land to Alawi villagers or continued to live themselves as nomads on the land without cultivating much of it. Consequently this land is now very sparsely settled. Round Homs there are said to be 2,000 to 4,000 hectares with only 10 per cent of the land cultivated: this is some of the most fertile and best situated land in the country, and could be developed by colonization schemes.

In several respects the French authorities have modified the Turkish system in ways which strengthen the landowners against the cultivators. One of these was the sale of the extensive *Waqf* properties to business enterprises, irrigation concessions, or landowners. Another was the abrogation of the right of ownership acquired by ten years cultivation which benefited the small cultivators in enabling them to acquire new land.

Efforts were made to start co-operative and agricultural credit banks, but these never succeeded in breaking the peasant's indebtedness. Several large-scale irrigation schemes were started, but produced more water than could be used. The educational system did not extend to the villages. Within the framework of the existing system, these reforms did little to raise the standard of the peasants. As a mandatory Power the French relied on the collaboration of the wealthy upper class, that is, on the landowners, and so could make no fundamental reforms in the land system.

POSSIBILITIES OF DEVELOPMENT

So far as dry land farming is concerned the possibilities of improvement are hampered by the dry summer, which necessitates a long period of fallow. However, it would be possible by

POSSIBILITIES OF DEVELOPMENT

better cultivation, if more machinery were available, to reduce the fallow to one year out of two, instead of two out of three in the districts where this is customary; it would also be possible, by machine cultivation, to keep weeds under control. (See Chapter VIII.)

The main possibilities of development, however, depend on irrigation. At present an area of some 500,000 acres is irrigated, and even under the existing scheme much water is wasted. How much additional land could be irrigated is a subject for controversy. Mr Soubhi Mazloum, a Syrian irrigation engineer, suggests that the total area which could be irrigated, including the use of the Euphrates water, may be as large as 1,200,000 hectares (2,960,000 acres):¹ but this figure refers to the area which it is *physically* possible to irrigate, not the area which could be irrigated with any prospect of economic return.

A more exact and detailed estimate was prepared by Professor Addison, the irrigation expert, who surveyed existing schemes in 1943 and considered that the extension of these which was then economically practicable would irrigate some 68,000 hectares (168,000 acres) in addition to the area already irrigated.

The difference between these two estimates indicates how wide a range of opinion there is. A survey is now being prepared by a British irrigation firm on behalf of the Syrian Government, to provide the basis of development projects, and pending its publication it is impossible to quote any more satisfactory estimates.

The Jezira and Euphrates Provinces. In inner Syria, the Jezira area and part of the Euphrates province in the north-eastern corner of the country, there are quite large possibilities of extending cultivation both in the rain-fed zone, and by irrigation. North of a line from Tiyne to Sheikh Saleh there is sufficient rainfall to water the winter crops. In the 'Duck's Bill' and along the Turkish frontier to a depth of about 12 miles to Derbisiye, the rainfall is 50 to 100 centimetres per year (20-40 inches), and south of this there is another belt with rainfall of 25 to 50 centimetres (10-20 inches), about 50 miles wide.²

¹ 'Le Problème de l'Eau au Liban et en Syrie', in *L'Agriculture, Richesse Nationale*, (Beirut, 1942).

² This information is based on an unpublished report prepared for M.E.S.C. in 1944.

Within this belt there is a large area of cultivable land still uncultivated, mainly for reasons of shortage of labour, lack of means of communication, and political insecurity. Uncultivated land is generally used for grazing, and in the 'Duck's Bill' the grass grows high enough for hay cutting. At present the cultivated area is some 481,500 hectares (1,188,000 acres), and it is estimated that an area about as large again remains uncultivated.

The population at present numbers 111,300, of which half are Kurds. Owing to its remoteness and unsettled state, there has been no survey and settlement of land title. New land is taken under cultivation under the old Ottoman right by which ownership is acquired if cultivation can be proved for ten consecutive years.

In the Jezira most of the land is held by large cultivators. In the Euphrates province much of the land has until recently been owned by the villagers, but now the land is passing into the hands of city landowners as pump irrigation is introduced (as in Iraq). The pumps and buckets are supplied against payment in kind by the town merchant or moneyed class; wherever irrigation brings more lands under cultivation, the ownership of the extra land is divided equally between the villagers and the suppliers of water.

The system of tenure is the usual share-tenancy; in the Jezira, according to local custom, the landlord takes one-eighth of the crop to pay taxes, and the remainder is shared equally between landlord and cultivator, the proportion being determined by the supply of labour. With the introduction of machinery—there were about thirty tractors in the area in 1942—the division into employer and labourers has developed: the landowner using the tractor on the land and employing wage labour.

Owing to the scarcity of labour, the position of the agricultural labourer in the Jezira area is better than in the rest of Syria. Health conditions, however, are bad: the Kurds suffer from trachoma and villagers in the Kamichlia district from malaria. In the Euphrates region, the position is worse: the agricultural labourer is weak and underfed, living a hand to mouth existence and exploited by all.

Both in the Jezira and in the Euphrates region there is scope

for widening the area cultivated and raising the yields, as the soil is fertile. In the Jezira the use of machinery could be extended—it is already increasing fast. Better livestock production could be achieved by greater use of fodder crops for which conditions are favourable: in the 'Duck's Bill' good clover grows wild. At present fodder crops are not considered worth cultivating.

In the Euphrates region there is great scope for extension of irrigation. But a large scale scheme would be costly because the river runs between high escarpments, which vary in distance between each other up to about 10 miles. To irrigate much larger areas it would be necessary to lift water over the escarpments. There are large areas of uncultivated land, particularly between Abu Kemal and Deir-ez-Zor. Even on the land already cultivated yields of wheat could be much higher: at present the yield is four to six times the seeding rate, and, according to local farmers, could be raised to ten to fifteen times the seed with better irrigation. The high cost of fuel oil is the limiting factor as it also is for tractor work. On the Khabur river improvement of the ancient barrages would permit an extension of irrigation.

It is in this area that there is real scope for a planned settlement of cultivators, with improved methods and a better system of land tenure. The obvious form for such settlement to take would be on the model of the Jewish co-operative farms, small holdings with collective use of machinery and working to a cropping plan; on the uncultivated land such settlement could be undertaken without incurring high capital costs.

So far as the Euphrates Valley is concerned, similar co-operatives based on communal control of water supplies might be started on a small scale. Large-scale irrigation here would be costly, and would necessarily have to be co-ordinated with the irrigation of Iraq. An immediate step needed is to reduce the price of fuel oil.

While it is easy on paper to see the possibilities of such schemes as these, it is not easy to see where in fact the motive power for them is to come from. They will not bring in quick big returns, which are what local farmers and landowners want: the district is remote and the main object of such investment would be a long period rise in the standard of living, in which the moneyed classes are not interested. Present-day Syria is not

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a 'welfare State': the conception of the peasants' well-being has not penetrated to political circles. Settlement on these lines might have been promoted by an agency such as the Middle East Council of Agriculture, had that come into being; but for foreign capital as such, and for individual immigrants, the conditions are too uncertain.

Chapter VII

IRAQ

LAND AND POPULATION

THE peculiar feature of agriculture in Iraq is that in the greater part of the country extensive farming is practised on irrigated land. Elsewhere in the Middle East irrigation is always accompanied by a great intensification of production, but in Iraq extensive and shifting cultivation is practised even on irrigated land, and both land and water are wasted.

The productive area of the country falls into two halves—the rainfall zone in the north, and the irrigation zone of the south, on the alluvial plain between the two rivers.

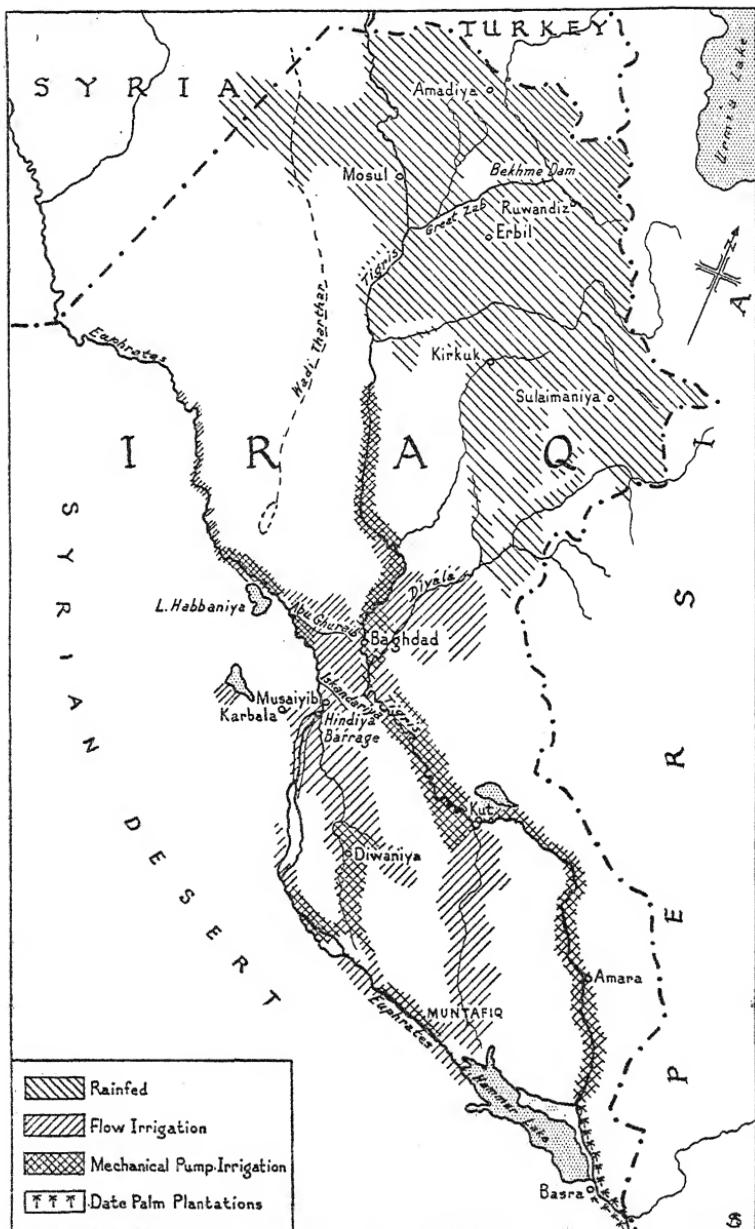
In the irrigation zone, there is no controlled system of irrigation, as in Egypt. Each river has a modern barrage, the Tigris at Kut, and the Euphrates at Hindiya, but both are situated low down towards the delta, and command a comparatively small area of cultivation. Apart from the areas served by the barrages, the main system of irrigation is by flow, that is, by basin irrigation.

There are two flood periods, December to March, due to winter rains, and March till May, when the snow melts in the higher reaches of the rivers, and there are therefore two crop seasons. The danger of flood is always present, because the level of the rivers in many parts is a few feet higher than the level of the plain. Some progress has been made in recent years in flood control, as for instance the Habbaniya escape, but there is great need for a reservoir in one of the upper tributaries of the Tigris to prevent flooding in the spring and to release extra water in the dry season.

In recent years there has been a rapid extension of cultivation as population has increased. In 1918, the total cropped area in the irrigation zone was only 936,500 acres, and in 1943 it had increased to 4,241,718 acres.

The classification of land in Iraq presents difficulties, because not all the cultivable area is cultivated and not all the cultivated area is cropped.

The main divisions in 1943 were as follows:



IRAQ: TYPES OF CULTIVATION

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LAND UTILIZATION IN IRAQ

		Square Kilometres	Acres
(a) <i>Total Area</i>	453,500	112,060,000
(b) <i>Rainfall Zone</i>			
1. Approximate gross area of cultivated and cultivable lands ..		41,000	10,131,000
2. Approximate <i>shutwi</i> (winter) and <i>safî</i> (sum- mer) areas at present cultivated annually ..		6,000	1,483,000
(c) <i>Irrigation Zone</i>			
1. Approximate gross area of cultivated and cultivable lands ..		80,000	19,770,000
2. (a) Area of <i>shutwi</i> (winter) cultivation capable of annual irrigation by river supplies ..		16,000	3,900,000
(b) Area of <i>safî</i> (summer) cultivation capable of annual irrigation by river supplies ..		4,300	1,054,000
3. <i>Shutwi</i> (winter) areas at present irrigated annually ..		12,100	2,947,000 ¹
4. <i>Safî</i> (summer) areas at present irrigated annually ..		4,000	1,001,000 ²
5. <i>Shutwi</i> and <i>safî</i> areas at present cultivated annually (total of 3 and 4) ..		16,100	3,948,000
6. Garden areas at present irrigated annually ..		1,200	309,000
7. Total area cultivated (5 and 6) ..		17,300	4,257,000

Source Ahmed Sousa, *Iraq Irrigation Handbook*, Part I The
Euphrates (Baghdad, Directorate General of Irrigation, 1944),
pp. 11-12

Thus the total cultivated and cultivable and cropped areas
are:

<i>Rainfall Zone</i>		<i>Acres</i>
Cultivated and Cultivable ..		10,131,000
Cropped ..		1,483,000
<i>Irrigation Zone</i>		
Cultivated and Cultivable		19,770,000
Cropped ..		4,257,000
 Total Cultivable Land		29,901,000
Total Cropped Land		5,740,000

The cropped area in the irrigation zone is divided between:

Winter crops	2,947,000
Summer crops	1,001,000
Garden areas (i.e., dates, etc.) ..	309,000
 TOTAL	<u>4,257,000</u>

The cropped area amounts to only one-fifth of the cultivable
area, and this needs explanation since it suggests that great
increases in cultivation are possible. Within the area cultivated

¹ By lift from pump installations approximately 1,591,380 acres; by flow from
perennial canals approximately 1,355,620 acres.

² By lift from pump installations approximately 560,560 acres; by flow (rice and
other summer crops) approximately 440,440 acres.

at any one time, a large proportion of the land is left fallow, as water supplies are insufficient to irrigate more. The cultivated land is approximately twice the cropped area, but under present conditions it would not be possible to crop the whole area owing to shortage of water. If water could be stored for the summer period, a crop could be sown during the summer in the irrigation zone. When the Bekhme dam is completed, the summer supplies of water will be so large that the area under summer crops could be greatly increased.

Not only is much land left fallow within the area which is being cultivated at any one time, but the area of cultivation shifts within the irrigation zone at intervals of several years, because after a period of cultivation the soil becomes saline. This results from the lack of drainage. Only in the areas where there is natural drainage from the Euphrates to the Tigris near Baghdad, or further south, where the Tigris drains into the Euphrates, is there no danger of salinity. When the soil gets saline, the landlord abandons it and transfers cultivation to new ground, and new canals are dug. This is of course a wasteful system, and can only continue as long as there are ample reserves of land. Thus an increase in the area cultivated depends on (1) a general irrigation system, (2) a general drainage system.

The question of how far it will be possible to extend the area under cultivation depends on how great an increase in total water supply is practicable. It is water, not land, which is lacking in Iraq. Varying estimates are available; Sir William Willcocks considered that the amount of land which could be put under winter cultivation in the irrigation zone with the existing average supplies of Iraq's rivers would be 7,410,000 acres or two and a half times the present winter cropped area.¹ Ahmed Sousa, in the estimates given in *Iraq Irrigation Handbook*, puts the total area which could be put under winter crops with the existing water supplies at 3,900,000 acres,² an increase of one million acres on the present area cropped.

On this estimate the maximum addition to the area under winter cultivation may be about one million acres; and possibly half a million acres could be added to the summer cropped area

¹ *Irrigation of Mesopotamia*, 2nd edition (London, Spon Ltd, 1917), p. 9.

² p. 3.

which now amounts to one million acres. More might be added by water storage schemes. At present several large new schemes are under consideration. These involve flood control by the construction of the Bekhme dam on the Great Zab, and an extension of the Habbaniya reservoir. In addition to the Bekhme dam a scheme for flood irrigation in the Wadi Tharthar is being considered. A survey commission is now preparing a report on these developments, but so far no estimates have been made of the area of land likely to be brought into cultivation.

At present there is no shortage of labour. The population is small in relation to the area cropped, but it is growing rapidly. In 1931, according to Dowson, the total population was 2,824,000, of which 2,246,000 were estimated to be rural, including 895,000 settled population and 1,351,000 still living in tribal conditions.¹ Estimates for 1943 put the total population at 4,500,000, of which the rural population was 3,500,000. Some regions, Basra, Karbala, Dulaim, and Muntafiq are densely settled, while others, chiefly in the north, Mosul, Erbil, Kirkuk, are settled very sparsely. The area of cropped land per head is 2 acres, and the area of cultivated land perhaps as much as 4 acres.

LAND TENURE

It is clear that Iraq has greater prospects of agricultural expansion than any other Middle East country. But to the development of these potentialities the greatest obstacle is land tenure. Sir Ernest Dowson, in his classical report on the subject, says: 'The injurious effect of the existing welter of uncertainty and dispute upon both the agricultural prosperity of the country and public order, can hardly be exaggerated. Every one directly or indirectly concerned with agriculture in el 'Iraq must know many individual cases in which the development and use of the land has been gravely obstructed by the widespread insecurity and confusion of rights. Indeed the most diligent inquiry would be unlikely to reveal anywhere any appreciable number of holdings, large or small, held in undisputed possession and free from hampering and conflicting claims. It needs no great effort of the imagination to appreciate the blighting effect of these unhappy conditions prevailing throughout the country, upon the

¹ Sir Ernest Dowson, *An Inquiry into Land Tenure and Related Questions* (Letchworth Garden City Press for the Iraqi Government, 1932), p. 12.

prosperity of the main national industry and the welfare and contentment of the people as a whole.¹

There are different varieties of tenure in the two zones, determined by the different conditions of agriculture. In the north, the forms of tenure are similar to those of Syria, with a class of small proprietors taking some, but not all, of the land. In the south large owners or sheikhs own virtually all of the land, letting it to share-tenants, through a series of intermediary lessees, minor sheikhs, sirkals (formerly sub-sheikhs), or town notables. At the bottom of this many-storied building the fellah cultivates the land under a burden of debt. This peculiar form has originated from the disintegration of the tribal system; the sheikhs have profited by the confusion of the law to secure individual ownership of land which by custom is the property of the tribe.

The Breakdown of the Tribal System. In the irrigation zone, the practice of shifting cultivation was accompanied until very recently by an equally unstable form of landownership. The basis of the ownership is the tribal *dirah*, a large area not limited to land actually tilled but including also non-cultivated land and submerged marsh land, over which a tribe exercises a customary right of occupation. These areas are considered to be the property of the whole tribe, and until recently were so in fact.

The tribal system existed generally until some forty years ago, and still prevails in parts of the country.² Under this system, the usual procedure was to set aside a part of the cultivated area, a third or even a half, to provide revenue for the sheikh to discharge his political duties, which then included the maintenance of a tribal militia, the provision of hospitals, and keeping the *mudhif* (the coffee shop and civic and social centre of the tribe). This revenue accrued to the office of the sheikh, and not to his person. The rest of the land was sometimes distributed among the families of the tribe, according to the numbers of fighters who had helped to seize the land from another tribe, or according to the amount of land reclaimed: more often, however, the land was cultivated in small groups, the tribal sub-

¹ *op. cit.*, p. 33.

² For a detailed account of the historical development of Iraq's land tenure system, see Salih Haider 'Land Problems of Iraq' (London University Ph.D. thesis, 1942).

sections or clans, under the direction of the sirkal, the head of the clan, who organized the members of the tribe on a share-cropping basis, the peasants generally taking a half, two-fifths, or a third of the produce.

But even on these individual holdings communal ownership is manifested in several ways: for instance by the fact that sub-tribal chiefs can be shifted from their holdings by the tribal chiefs; by the right of pre-emption and veto exercised by the tribe over transfer of land from one member to another, and especially to outsiders; the fact that women are excluded from inheriting land; the moral duty of employing members of the tribe in preference to outsiders; and in certain parts of the country, reallotment of the land on the *mushaa* system.¹

The method of farming necessitates the existence of some measure of communal cultivation and ownership. Cultivation by irrigation involves many duties which cannot be performed by one household—the clearance of canals, the building of dams across channels, and the strengthening of the river banks; all these functions require tribal organization. Hence the head of the clan, the sirkal, was originally a manager on behalf of the tribe; he employed the peasants and divided the land among them into plots to support them until the harvest, appointed the dates of sowing, harvesting, and threshing, and organized irrigation and canal clearance.

Thus, although the tribe exercises a right of occupancy over the tribal *dirah* and can prove occupation of the whole area, it cannot be proved in the same sense that the peasant has a certain plot of his own occupied for a number of years. Within the tribal *dirah*, the area cultivated by each group shifts as canals silt up and the land is impoverished by salt, and so the area cultivated by each peasant shifts also. The peasants themselves are largely mobile, both within the tribal *dirah* and outside it; cultivation is rather half-hearted and grazing remains an alternative occupation.

It must be remembered that the tribal system, when it prevailed generally, had no legal basis, and no protection from the State; the tribe was, in fact, in itself a unit of political organization, and itself performed the State's functions. Within the

¹ From an unpublished report by Dr Salih Haider, on 'The Problem of the Land in Iraq' (1944).

tribal organization there was no clear definition of individual rights of ownership to the collectively-owned land. It was a system which could exist as long as no one thought about it; as long, that is, as the tribe was accepted as the unit of political life, and as long as no individual claims were likely to be made. It is for this reason that it is impossible, once the tribal system has ceased to be the political unit, to settle land on a tribal basis; and yet to settle land on the basis of the supposed individual claims creates grave injustice, because in practice it means that too much land is allotted to the sheikhs and that the cultivators are reduced to the position of tenants or labourers.

Since the early years of the twentieth century the tribal system has been breaking up, and the economic development of the country in the twenty years between the wars has hastened its disintegration. When water transport came to the Persian Gulf towards the end of the nineteenth century, export markets opened for Iraq grain; the subsistence economy broke down and production for export began. Exports of grain increased from 65,000 tons in the early eighteen-nineties to 120,000 tons in 1909-13, and to 380,000 tons in 1934-9. The profitability of export has given the tribal chiefs a motive for acquiring land as their personal property.

The tendency to acquire land for the sake of money income was much strengthened, in the twenty years between the two wars, by the rapid extension of pump irrigation and the accompanying increase in the cultivated area. Pump installations have increased from 143 in 1921 to 3,000 in 1944, and provide water for some $2\frac{1}{2}$ million acres of land, or over half the cultivated land in the irrigated zone. The installation of a pumping system is comparatively cheap, costing some £2,000 before the recent war, but it is far beyond the means of the peasants, so that pumps have been installed by sheikhs, or more frequently by city notables, who make contracts to supply them to peasants at extortionate rates of interest, and so gradually acquire the land in payment of debt. In many cases the sub-chiefs, or sirkals, have become pump owners.

Thus in the regions of pump irrigation the tribal system has entirely ceased to function. The land is mainly the property of the pump owners, with the cultivators taking a meagre share of the crop, varying from one-seventh to one-fourteenth or one-

twenty-first part of the total. The position of the share-tenant in Iraq is much worse than that of his counterpart in Syria.

In the districts of flood irrigation the tribal system has disintegrated, but its superstructure, the sheikhs and sirkals, remains. Most of the political functions of the tribe have now been transferred to the State, and the only economic function now performed by the tribal authorities is the control of irrigation, digging of canals, and repairing of breaches, which is done by the cultivators under the direction of the sirkal who has become a kind of farm bailiff acting for the sheikh. Under this system the sheikh and sirkal take together up to 80 per cent of the crop, leaving the cultivator some 20-30 per cent.

This exploitation is possible because the sheikhs have succeeded in establishing, mainly during the last fifteen years, their title to absolute ownership of the tribal land by means of land settlement. Because in Ottoman times the cultivators had no legal title to the land which they occupied, the landlords were able, during the period of the mandate, to use their political power to secure legal title to land which was by custom and tradition the property of the tribe. In much the same way the English landlords of the eighteenth and nineteenth centuries enclosed land as their property which was traditionally common property, and ousted small holders whose title was based only on custom. As in nineteenth century England, the process is being hastened by mechanization, which gives the big landowners an advantage as against the small cultivator, and by inflation, which gives them the impetus to invest. The big landowners of Iraq are a comparatively recent creation, and it is the economic and legal changes of the past twenty years which have established their position.

Northern Iraq. In northern Iraq there is a different type of land tenure and fewer large landowners. South of Mosul, in the fertile Tigris Valley, where pumps have been installed, there is a tribal system resembling that of the south, and the land is owned mainly by tribal sheikhs and notables. West of Mosul, on the rolling uplands with poor rainfall, the land is also held on a tribal system. In this region in recent years there has been a rapid introduction of machinery; and the sheikhs are extending their power to acquire land. In future bigger imports of machinery will probably cause them to extend their influence

over larger areas, much as the pump owners are doing on the Lower Tigris.

But in the north-eastern rain-fed zone, Kirkuk, Erbil, and Sulaimaniya, the position of the cultivator is better. There is a settled system of cultivation and a large part of the land is held by small proprietors. In the plain lands of Kirkuk and Erbil as much as 75 per cent of the land is held by small cultivators with holdings up to 200 dunums. Here the method of cultivation is much the same as in Syria, a *daim* (i.e. dry) crop being taken every two years.

Here too the legal position is different. In this part of the country, the provisions of the Ottoman Land Code remained in force, and most of the land was registered in Turkish times. Frequently the *agha* (or *mukhtar*), who was originally the patriarchal head of the village with the duty of maintaining order, has used his position to acquire land, and registered the land of the village under his own name. This has happened particularly often in the Kurd villages, where in spite of the Land Code's explicit prohibition of granting an entire village in the name of one person, the Turkish authorities, for the sake of peace, registered whole groups of villages in the names of the notables of Mosul, Erbil, Kirkuk, and Sulaimaniya.

But even though the landlords have obtained title to land, the share paid to them is much less than in the south, and amounts to only 10-20 per cent of the product.

Thus the problem of reforming tenure is here much less acute. As in Syria, peasant indebtedness is the major problem, but in the course of the recent war the high prices of grain have enabled the majority of the peasants to wipe off the burden of debt.

In the high mountain regions, however, particularly in the Zibar district, there is acute agricultural distress; a series of bad harvests due to plant disease, insect pests, and insecurity, has caused the agricultural economy to go steeply downhill in the past few years.

Settlement of Title. During the nineteenth century, the Ottoman Government attempted to settle title to land under the Land Code, as it did in the rest of the Turkish Empire. The Code was extended to Iraq under Midhat Pasha with the object of registering occupiers of land and thereby granting them

the right of ownership. But owing to the practice of shifting cultivation, few of the cultivators of land in Iraq could prove ten years occupancy. The result was that land was registered as the property of tribal sheikhs, town notables, and Kurdish *aghás* over the heads of the peasants. The title deeds granted were always inaccurate, with the areas and boundaries indefinite.

The grants of *tapu* tenure led to conflict and even actual fighting between sheikhs and tribesmen, and to such confusion that general registration could not be completed. The Ottoman Government, which did not want to strengthen the power of the sheikhs, therefore stopped the process of registration when about one-fifth of the land had been registered and ceased to apply the provisions of the Land Code in the southern part of Iraq. Two decrees issued in 1880 and 1892 declared that the State was to become the landlord and should have the power to evict tenants at will.

Thus in 1919 the greater part of the land of Iraq was in theory the property of the State. This does not mean, as it does in the other territories of the Middle East, that it is land which formerly belonged to the Ottoman crown estates; it is in reality land which is held on no legal tenure at all, and is considered to belong to the State because the occupying owners have no registered title.

Various unco-ordinated and spasmodic attempts to settle land title were made between 1919 and 1930, but they were largely abortive, and in 1931 Sir Ernest Dowson was requested by the Iraq Government to investigate the problem of settlement of title. In his report he summarizes the problem as follows:

'Probably four-fifths of the cultivable area of the country is in law fully and freely owned by the State and when cultivated held in practice under the general administrative control of its representatives. And even the legal ownership (*raqaba*) of the balance is vested in the State although, subject to important conditions, its usufructuary possession is held on a permanent heritable and assignable tenure. This tenure (known commonly as *tapu*) is that applicable under the provisions of the Land Code to all State land. The Ottoman Administration persistently sought to give effect to these provisions, but failed to do so because the successful

operation of this tenure is impossible without an accompaniment of effective survey and land registration, which the Administration were unable to provide. And even if this radical defect had been remedied the application of this advanced tenure would have been premature throughout the majority of the country. So that to-day—more than half a century after the introduction of the Ottoman Land Code in the country—only a fraction of the cultivated region is somewhat uncertainly held on *tapu* tenure, while throughout the overwhelming balance, land is for the most part occupied and cultivated on no legal tenure at all.¹¹

He recommended that the problem should be tackled in three ways:

First, the work of survey must be unified and completed, since without a survey no settlement of title could be established.

Second, the different departments concerned with land tenure survey, registration, and settlement should be co-ordinated in a central department, a Central Lands Office, though they should continue to work under different ministries.

Third, the settlement of title should be made on the basis of the confirmation and maintenance of beneficial occupational use. Dowson considered that it was important for the State to register the tenure as leasehold, because, in a country with great agricultural potentialities like Iraq, it was important for the State to retain its right of ownership so that it could make use of the land at a later stage for purposes of development. Hence Dowson recommended that the land should be registered legally as a leasehold tenancy from the State.

This idea, that land tenure must be planned with reference to the *future* development of Iraq's agriculture should clearly be the main principle of reform, but it has unfortunately been entirely forgotten in practice. As a result of Dowson's recommendations, land settlement was carried out under the direction of British officials on a much more systematic basis than before, but his most important recommendations were not put into effect.

In the first place, a large part of the land was granted freehold and not leasehold. In 1932 a law was passed giving the

¹¹ *op. cit.*, p. 74.

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Government the right to settle title to land. From 1933 to 1943 5,330,000 hectares of land were settled covering the whole of the agricultural area, in the following categories:

		Hectares	Acres
Leasehold (<i>Miri Surf</i>) ..	..	3,000,000	7,413,270
Freehold (<i>Lazma</i>) ..		1,200,000	2,965,308
Freehold (<i>Tapu</i>) ..		900,000	2,223,981
Endowed (<i>Mulk Waqf</i>) ..		250,000	617,772
TOTAL ..		5,350,000	13,220,331

The freehold title, described as *lazma*, was a new legal category, supposedly suitable for tribal conditions. It grants freehold ownership, that is, *tapu* title, to the occupier after ten years' cultivation as a leaseholder, and its special feature is that land so granted cannot be sold outside the tribe. The object of introducing this new type of tenure was to maintain tribal solidarity, but it has not in fact had this effect, and has been mainly used by the pump owners to secure ownership against the customary rights of the tribesmen.

Nor have Dowson's recommendations as to the creation of a Central Lands Office been carried out. The Survey and Land Settlement Departments are under two separate ministries, Communications and Justice respectively. The Survey Department complains that it has not enough surveyors for its work, and that owing to lack of co-ordination its surveyors are taken off for land settlement work and cannot therefore carry on their regular work of survey. Land registry is undertaken by two departments, the old Turkish Tapu Department which is reported to issue title deeds on the basis of the titles settled, and a newly created office for registration of changes in tenure after settlement; this is an unnecessary duplication of function. Thus there is not any central department charged with the direction of policy, and this defect has had bad practical results.

The real problem of settlement has been the decision as to who should be regarded as the real owners of the land, the sheikhs, the sirkals, or the cultivators. The general objective was to settle the land on the basis of the existing rights. If, that is to say, the sheikh has a claim of one-fifth of the produce from each of a hundred cultivators, he should receive a holding of land equivalent to one-fifth of the total land and each cultivator

should receive a title of ownership to four-fifths of the land he cultivates. This system of subdivision has been generally practised in the Middle Euphrates region, where the *karad* or water-wheel owners form a settled peasant class, and has given satisfaction in the majority of cases.

But in other regions, where the power of the sheikh is still very great, and the tribes still exist as a social unit, the land has been granted to the sheikh as the head of the tribe, and he has thus become entitled to the whole of the land as his individual property. The principle is that the size of the plot varies inversely with the power of the Government: where it is powerful, the small men gain a useful share of the total, and where it is not, the sheikh gets a legal title to the whole. Thus in part the land has been settled in small holdings, in part handed over in very large blocks.

The main criticism of settlement of title in Iraq is, therefore, that settlement commissions have alienated State land in large areas to tribal chiefs and influential pump-owning townsmen.¹ Though this is not entirely true, since some small cultivators have been given title to the land they occupy, yet in the main this has been the effect, and settlement certainly needs amendment from this standpoint.

The second criticism, often voiced by the rural community and those who have had experience of the operations of settlement, is that settlement commissioners have too wide powers and tend to be influenced by political and personal considerations. Very wide powers are in fact necessary for the settlement of complicated long-lasting disputes where documentary evidence is rare, conflicting, and vague, and where false witnesses can be brought on both sides and where the disputes themselves are further complicated by tribal prejudices, family quarrels, and blood feuds. It is generally admitted, however, that settlement commissions tended to become the resort of high officials who were neither energetic nor competent, and did not stay long enough to acquire the experience needed: it is not surprising that they were corrupt.

A third criticism, and the most serious, is that the new settlement is only *ta'pu* tenure (i.e., the old Ottoman tenure) applied more efficiently and with proper surveys. It has the same weak-

¹ Salih Haider, *op. cit.*

ness of putting the fluid tribal system into a rigid mould, and a mould which gives the sheikhs undue power. When the tribes have completely disintegrated, it has been not unjust, as in some districts of the north and in Basra liwa. But in the purely tribal areas of Muntafiq, Amara, and Diwaniya liwas and the Kurd hill districts of Ruwandiz and Amadiya it has met with the same incompatibility which was the reason for the failure of the *tapu* system. In these districts the settlement commissioners have confirmed the legal title deeds, in Muntafiq and other areas over the heads of the actual occupants. In Amara, even sirkals and sub-tribal chiefs have no prescriptive rights to the land and have not been able to prove occupancy.

Hence the settlement law really needs drastic changes to enable satisfactory settlement of tribal areas, in particular to give title to tribal occupants of land, even if valid *tapu* titles are possessed by sheikhs.

The Sheikh as Landowner. This wholesale alienation of the land in large blocks to the sheikhs causes injustice to the cultivators and also creates great obstacles to future development. The sheikhs as a class are wealthy and important, since they control stocks of grain, and hoard the output of their estates: but they have no value in relation to the management of production. 'He is in fact too big a man to be a farmer and too indolent, corrupt and uneducated to make of himself anything else. As regards agricultural activity, the sheikh is completely unimportant; he takes little interest in seed or ground preparation, is more ignorant than his farmers about such matters and performs his large-scale water-sharing functions at the request and on the representations of his farmers and through his agents.'¹ Thus the bulk of the land has come into the hands of a class from whom no leadership in agricultural methods can be expected and which is tyrannous, callous, and oppressive.

In the areas where the tribal system still functions as a reality no land settlement has really been undertaken at all, that is, in Amara (mainly rice fields), in Diwaniya, where the risks are too great, and in the Muntafiq where there is an endless struggle between the Sadun family, who claim to be the principal

¹ From an unpublished report prepared for M.E.S.C. on 'Land tenure in Amara Liwa', 1944.

landowners, and the occupying peasants, which has from time to time led to outbreaks of violence.

In the Amara liwa for instance the sheikh has fairly complete power over his tribal sirkals and fellafeen. 'He switches his secondary lessees around at the yearly leasing time, throwing out any one he disapproves of, allotting the portions of land either by a form of auction or by direct agreement. The power of the sheikhs varies with the prosperity of the estates. The poor estates in the liwa, for instance, the Beni Lam estates, are short of labour and the sheikh is glad to get any comer on almost any terms. In such estates, the pump-owning secondary lessees (or sirkals) become the real masters of the land they cultivate, and the sheikh becomes a rent receiver. Other poorer estates in this district are becoming the property of the big rice merchants of the towns.'¹

A report from the Muntafiq liwa describes similar conditions. The land is being ruined by bad farming, because year after year the same land is sown with a winter corn crop, and gets no rest either through fallow or through a rotation of crops. The government regulation that land must remain fallow in alternate years is disregarded. 'Perhaps the greatest racket in this area is the undue amount of the crop taken by pump owners,' says the report. This is due to the lack of any credit system: much forward selling of the crops takes place as soon as the green appears, at ruinous prices to the cultivator, sometimes in return for a loan amounting to about a quarter of the current grain price.²

In the densely settled regions of the south, such as Muntafiq, the position of the cultivator is particularly bad. He usually receives only a 30 to 50 per cent share of the produce. A typical apportionment of the crop is:

	10 per cent
Government .. .	
Principal tenant (sheikh) .. .	7½
Sirkal .. .	2½
Landowner (either the sheikh or a notable) .. .	40
Fellah .. .	40
TOTAL .. .	100³

¹ *ibid.*

² From an unpublished report prepared for M.E.S.C. on 'Land tenure in Muntafiq Liwa', 1944.

³ A. Bonné, 'Conditions and Problems in the Agriculture of Iraq', *Bulletin of Agricultural Economics and Sociology* (International Institute of Agriculture, Rome), February 1934, p. 53-E.

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Out of this 40 per cent the fellah must also pay a rent for the upkeep of the canals which irrigate the holding; this may amount to 20-45 per cent of his share.

At the beginning of the season the fellah receives in advance from the employer:

	<i>Dinars</i>
300 kg wheat . . .	1.800
150 kg barley . . .	.525
Cash in 3 instalments . . .	<u>3.750</u>
Seasonal interest 30 per cent . . .	6.075
	<u>1.800</u>
TOTAL . . .	7.875

1 Dinar = £1 sterling

He is not as a rule able to repay the loans from the sale of the produce, and so gets deeper and deeper into debt to the land-owner. Thus there has evolved a particular kind of debt-serfdom: a landowner who needs labour from one estate can pay an advance to a whole village or several villages, and so obtain 'the right to demand the transference of the land workers thus "freed" from their debts to his lands.'¹

Changes in taxation have also benefited the big landowners. To promote the expansion of pump irrigation, land irrigated with pumps was partially exempted from taxation. The reform of taxation under the Istihlak law of 1931 has also operated mainly to the advantage of the large landowners.²

Thus the former tribesman in Iraq has been reduced to the position of a serf-tenant, who is entangled in crushing indebtedness, and so is tied to the holding which he cultivates.

In spite of the wise recommendations of Sir Ernest Dowson's report, and the advisory efforts of British officials to improve the security of the small cultivator, it cannot be said that land settlement has succeeded in removing the oppressive character of the land system. Nor has any reform been made to permit the development of State land.

As regards water-rights, there is the same situation as in Palestine and Transjordan; attempts at legislation have been frustrated by local interests, and here the need for legislation is

¹ *ibid.*, p. 55.

² See P. W. Ireland, *Iraq, A Study in Political Development* (London, Jonathan Cape, 1937), pp. 440-1.

still greater. Rights are recognized *ab antiquo*, which means by custom established beyond the memory of man, but since all the pumps have been installed in the last thirty years, no rights in connection with them can be recognized. The main problem has been that sheikhs or town notables put in pumps on a holding and then claim the whole of the land. Where there has been a settlement of title, claims have usually been settled on a share basis, but in other cases the pump owner has succeeded in getting the whole of the land. This is not a satisfactory position; in 1938 a draft irrigation law was prepared by the British expert on land tenure, but it has not been enacted.

The Government which came to power in Iraq after the *coup d'état* of 1936 severely criticized the policy of granting enormous blocks of land to individual owners. The fact is of course that previous governments were unable to resist the power of the sheikhs, or of the pump owners, and allowed them to jump claims to land before settlement. As a result of these criticisms, a new act was passed in 1938, which somewhat modified the powers of the pump owners, and gave the existing cultivators stronger rights.

But little progress has been made since that time. The Government's conception of reform was revealed in 1943 when the Ministry of Finance began the sale of the State leasehold (*miri sirf*) lands by auction, as an anti-inflationary measure. This was an illusory remedy for inflation, and threw away some of the State's power to reform land tenure and develop agricultural resources. In view of the fact that cultivation is likely to extend in the future as a result of new irrigation schemes, it is clearly important that the Government should decide on the principles which ought to determine future policy. If Iraq is to receive large loans for development, a settlement of the rights of the cultivators will become even more important.

PROPOSALS FOR REFORM

In Iraq, unlike the other countries of the Middle East, the reform of land tenure is the subject of genuine political discussion. Although in its economic life Iraq is far more backward than Egypt, it is politically more alive, and it is realized by the official class at least that reforms are needed, and that a new system of tenure must be evolved. Discontent with the land

system often takes a very active form: clashes between officials and peasants in regard to the collection of revenue, for instance, are quite common, and there are long-drawn-out conflicts about land occupancy, as for instance in the Muntafiq district.

But although there is discontent, there is not much hope that the land-tenure system will be reformed with reference to standards of social equality or economic efficiency. Land tenure is mainly a controversial subject because it has been linked with British administration, and its abuses attributed to British mistakes. The difficulty has been that the British influence was only advisory, and that the Government did not control an administration efficient enough to carry out the recommendations of the expert advisers, nor could it take measures against the landowners.

Hence there is no agreement as to the object of reform. Some consider that the small cultivator ought to be given freehold tenure; others consider that settlement in larger units, with the sirkals as owners, is desirable.

The real problem is to propose a reform of tenure on lines which would reconcile the need for national planning with security for the small cultivators. From this standpoint the only proposals which have been made are those drawn up by an official of the Land Department, who has had long experience in this field.

These are:

1. Reform of the present system of *tapu* tenure (i.e., the freehold type) by making non-cultivation a cause for loss of title, as is at present the case for land held on *lazma* tenure.
2. Reform of the *miri sirf* category of land by dividing it into two categories:
 - (a) Those which Government intends to develop by canalization, for example, land covered by the Greater Iskandariya scheme, or by the scheme for development at Abu Ghuraib and on the Greater Musaiyib. Grants of title should not be made in these regions without decision of a special committee, and should be approved by the Council of Ministers. These regions should be reserved for grants of *tapu* land in plots of not more than 100 dunums, and no person should be allowed more than one

plot; they should, in fact, be reserved for peasant proprietorship.

- (b) Those which the Government does not intend to develop by canalization. In this category development will of necessity be by utilization of private enterprise and capital. It is recommended that this land should be granted in *tapu* ownership by auction in plots of not more than 10,000 dunums.

This last proposal seems difficult to approve in the districts where tribal system still holds sway, since in these districts the granting of large areas of land would serve simply to bolster up the powers of the sheikhs and would not necessarily lead to development. Some of the sheikhs are modern business men (as, for instance, the sheikh of the Beni Shammar who, although illiterate, has converted his enormous properties into a limited company registered in New York). Others are still tribal chiefs whose authority rests on the traditions of religion and war, and who are not likely to plan for the development of their land.

Other proposals which have been made are:

1. The development of colonization schemes on new land, with favourable leasehold conditions for the small cultivator, which would attract labour from the sheikh's estates by offering better conditions. By causing a shortage of labour, this would induce the large proprietors to offer better conditions.

This proposal has been advocated by Salih Jaber, the present Prime Minister, and is probably the most practicable under present conditions.

2. Settlement of title on the basis of sirkal ownership. The sirkals are, as has been explained, minor sheikhs or agents of the large sheikhs. They perform an indispensable service in organizing production, because they organize the digging of canals and the planting of the cultivated area in relation to it. They are in fact a sort of irrigation service, and a type of farm manager which does not occur elsewhere. Whether they should really become the basis of the property system seems doubtful, but the proposal is mentioned because it does take into account an essential feature of the Iraqi land system which might be difficult to replace.

The difficulty in the way of these proposals is that they all presuppose some limitation on the power of the large proprietors which the Government must carry though. Yet the Government itself is composed of the large proprietors. In many parts of the country the sheikhs are still an essential part of the administrative system, and are local authorities who can, if need be, oppose the central Government. In the programme of the present Iraqi Government it is stated that one of the aims of economic policy should be 'to encourage small ownership and make it a basis for agricultural development in all parts of Iraq, and to set maximum and minimum limits for ownership on all future agricultural projects to be undertaken by the Government in *miri sirf* lands.' But it seems improbable that this proposal, which would necessitate revision of the titles granted under land settlement in recent years, will actually be put into effect. Indeed it is as useless to expect that the existing regime will take steps to reverse or check the extension of large ownership as it would have been to expect the oligarchic governments of nineteenth-century England to stop the advance of enclosures. There is as yet no political force to counterbalance the large landowners, and until one develops there is not likely to be any limitation on their power.

Chapter VIII

THE NEED FOR NEW FORMS OF TENURE

FROM this review of the conditions of land tenure and agricultural production in each country, it appears that extreme poverty is general, and is everywhere a result of the low productivity of the land, and of the excessive share of the farm income taken by the landlords. Egypt stands outside this picture, since there the low productivity of the land is not a cause of poverty; on the contrary, the level of productivity is very high and the poverty of the farm population is due to the high density of the rural population and the great inequality of the land system.

But in the other countries low productivity and a retrogressive land system go hand in hand. The land system has three great faults:

1. The excessive rents taken by landlords in return for no productive service;
2. the chronic indebtedness of the peasants;
3. the unsuitability of individual cultivation for technical progress of the kind which the regional conditions permit.

The low productivity and the evils of the land system are interdependent. The fact that output per acre is low means that the cultivator has no reserves, and in a bad year must borrow to cover consumption needs, incurring debts at high rates or selling his land to the landowner. At the same time, because the landlords take an excessive share of the farm income, and do not devote their share to land improvement, there is no long-term investment in the land to promote an increase in its productivity, and so raise the general level of incomes in agriculture.

Because these two aspects of poverty are interconnected, it is useless to look for the remedy for rural poverty in technical progress alone, since technical changes cannot be carried through unless the farming community is interested in better methods, and at present the cultivator cannot, and the landlord will not, invest in long-term technical improvements. Most of

the technical improvements which are needed are so large in scope that they lie outside the fellah's reach; most of them are also slow long-term improvements which cannot offer high and quick rates of return. If they are to be adopted they will require far-reaching social changes.

Equally, social change alone will not help, if there is no change in the methods of production; if the entire landlord class were abolished, while the methods of farming remained the same, bad years would still bring starvation to the cultivator and force him to borrow from one source, if not from another.

First, therefore, it is necessary to review the kind of technical change which is needed to raise the general level of productivity, and this is not easy, since on many basic and decisive technical questions the present level of scientific research does not provide a definite answer. It is easy to see, for instance, that the fellah's plough is absurd by European standards, that he uses no animal manure and practises a medieval crop rotation; it is easy to conclude therefore that the productivity of the soil could be increased if all these things were changed to conform to our European ideas of good farming.

But in the course of the war, when the question of increasing production became suddenly important, the farming practices of the Middle East were examined more scientifically and critically than before, and the high level experts came to the surprising conclusion that there was much to be said in favour of the cultivators' methods. Dr Keen in particular has emphasized that the traditional good farming practice of temperate climates is not necessarily applicable at all to Middle East conditions, where shortage of water is the overriding factor. All that is accepted as technically sound in Europe, deep ploughing, the mould-board plough which inverts the furrow, the use of organic manure, are practices designed to increase soil fertility when the rainfall is adequate, whereas in arid regions the essential aim is to conserve the moisture content; consequently many of the practices which in Europe are regarded as essential may be unnecessary, and even injurious, in Middle East conditions.

The most obvious example of this fact is the fellah's plough. The usual instrument of the cultivation is the nail plough, which

merely scratches the surface of the soil and does not invert the furrow, as the mould-plough does. This instrument, which looks so ineffective when pulled by a camel or a donkey, now finds favour with the scientists. Dr Myers, for instance, the American dry-farming expert, has spoken in strong terms of the 'fallacy of the mould-board plough' for dry farming, and of the mistaken belief that deep ploughing helps grain yields.¹ 'Tillage experiments in the United States have consistently shown that ploughing deeper than 7 inches is not conducive to higher crop yields. This applies under both humid and dry land conditions.' Dr Keen believes that this view should be qualified, since in particular cases deep ploughing has proved its value, but agrees with the general statement that no appreciable crop increase is obtained by deep ploughing; he states that 'it may well be that the shallow cultivation of the native system of tillage keeps to a minimum the inevitable losses of water in the preparation of a seed bed.'² At present the Palestine Government is carrying out tractor experiments in dry-farming conditions in South Palestine, and in Cyprus experiments are in hand to compare mould-board and local nail ploughs and also modern and local methods for preparing a seed bed. But while these experiments will have great value in determining what range of improvement is possible, it does not appear, if the expert's general view is correct, that they will produce any new sensational proof of the advantages of machine cultivation or deep ploughing, though they will no doubt demonstrate the conditions for successful tractor work in Middle East conditions.

Another and even more striking example of the justification of traditional practice by expert opinion is the question of whether it is important to increase the organic matter of the soil by the use of organic fertilizers. To the non-expert the fact that animal fertilizers are scarcely used at all is one of the most obvious faults of the farming system. Low crop yields and the rapid erosion of the soil are both frequently ascribed to the lack of organic matter in the soil; what little animal dung there is is used as fuel, and never as fertilizer except on irrigated land. Wasteful as the practice seems, it may be justified; there is no

¹ Dr H. E. Myers, 'Dry Land Farming Practices' in *Proceedings of the Conference on Middle East Agricultural Development*, p. 27.

² *op. cit.*, p. 53.

scientific proof of the value of animal manure in Middle East conditions.

Dr Keen considers that far more research on this point is needed before its value can be proved, since 'the effects of organic matter seem much more ephemeral than in temperate climates, owing possibly to the much quicker rate of decomposition and the smaller equilibrium content of the end-product of the soil . . . Unless some system of husbandry can be devised in which the crops can utilise a good proportion of the nitrogenous material, the advocacy of increased organic manuring as a means of increasing fertility is hardly justified. Indeed, a good case could be made out for the peasants' custom—so generally condemned—of using dung for fuel; if so small a proportion of its nitrogenous value is obtained by plants, owing to the rapid oxidation and disappearance, is it not better to use the heat of oxidation for domestic purposes than to lose it uselessly in the soil?'¹

Obviously this view is of decisive importance, since if organic fertilizers do not improve yields in dry-farming conditions, it means that there can be no development of mixed farming, that is, of livestock production integrated with cereal growing, in which the fertility of the soil is maintained by animal manure and by crop rotations, and in which fodder crops, such as clover, are used as nitrogen fixers. This view, therefore, is decisive from the standpoint of farm organization; if there can be no change in the direction of mixed farming, there can be little progress in the direction of the individual peasant family farm as we know it in Europe. The European type of peasant farm depends for its economic stability on livestock production, which increases soil fertility, and favours small-scale production; more important, the ownership of livestock promotes small-scale investment and gives the farmer reserves against bad times. But if no advance towards livestock production is possible, the peasant is doomed to remain a cultivator of cereals, in which small-scale investment is scarcely possible and where fluctuations in yields expose him to too much risk.

Is he then doomed to remain the victim of the medieval system which now prevails? The present farming system in Syria, Transjordan, and Iraq is in essential that of the Middle

¹ *ibid.*, pp. 47-8.

Ages in Europe; that is to say, it is a system of extensive cereal growing with no root crops or fodder. The three-year or two-year rotation, winter crop, summer crop, fallow, or winter crop alternating with fallow, is followed as it was in Europe until the eighteenth century. The field lay-out with the peasant's *feddan* holding scattered in strips over the open fields resembles the open field of the English village, with its virgate holdings. As in the Middle Ages, there is always a shortage of fodder, and more livestock than can be adequately fed. Livestock rely mainly on grazing on the arable land after harvest or on the desert grazing. Uncontrolled grazing by goats and sheep endangers the fertility of the whole region.

But how can this system be abandoned? In England and in Europe it was the introduction of root crops and clover which put an end to the old three-field system, and increased yields at the same time as providing winter fodder for the cattle. But where in Middle East conditions is such progress to come, if there is little to be gained by the use of organic manure or by better cultivation and deeper ploughing? The ways of progress of the eighteenth and nineteenth centuries appear to be closed, and there is no advance to be expected on the lines of the improving landlords of eighteenth-century England, or the frugal peasant farmer of nineteenth-century France.

It does not follow, however, that there are no possibilities of progress at all. It is the twentieth-century changes in agricultural methods, not the nineteenth, which are significant for the Middle East, and it is from the dry-farming techniques and soil conservation practices studied and applied in recent years in the United States that the Middle East can hope to advance. As an instance of the kind of improvement which the dry-farming experts recommend as likely to cause a general increase in yields, Dr Myers suggests better eradication of weeds, and connected with it a reduction of the seeding rate. 'Wherever a weed grows,' says Dr Myers, 'there an economic plant might have grown to produce food for man or animal. The importance of weeds in reducing the moisture supply to crops cannot be over-emphasized. The abundance of weeds on many dry land soils of the Middle East is a very important factor in reducing dry land crop production.'¹ The high seeding rate is wasteful of seed

¹ op. cit., p. 26.

and lowers the yield because it means that there are too many plants per unit area.

Those who remember the weeds of Syria will agree with Dr Myers. But the difficulty is that the peasant, with his one animal, cannot give proper cultivation to the fallow which covers half his holding. Shortage of ploughing equipment and power is the big obstacle. This point is strikingly obvious in the village of Mishefe in Syria (see p. 86) where the peasants have sufficiently large holdings, but are unable to cultivate their whole area for lack of livestock and equipment. It would be possible by the use of sweeps with the existing Arab plough to eradicate weeds, but this would not overcome the draught power shortage. Only by the general use of power machinery will it be possible to eradicate weeds over larger areas.

However, while this improvement is needed, it is not likely that it would bring about a great increase in yields; an increase of some 30 per cent is perhaps the most that could be expected, and this limitation applies to all techniques of dry farming and soil conservation. The degree of improvement in dry farming cannot be large, because lack of rain must always be the dominant factor, and crop failures will occur with machine cultivation just as often as they do now.

It is recognition of this fact which should be the basis of any suggestions for land reform. Since no technical change is going to increase yields by any large percentage, the only way in which the peasant can ever gain a subsistence minimum is by farming and cultivating a larger area. This, with their existing livestock, they cannot do, and a degree of mechanized cultivation is therefore the only solution for the poverty problem in the dry-farming areas. There are, of course, many minor improvements which could be made within the framework of the existing system, such as the improvement of livestock breeding and poultry production. But so far as the broad lines of development are concerned, the only real solution is the extension of the area cultivated per head, and the better cultivation of the fallow, with a form of village ownership of power machinery, and a State service of qualified experts to direct the use of the machines. This generalization holds good for most of Syria, northern Iraq, and Transjordan; it is less valid for Palestine where there is little fallow and holdings are too small.

But mechanization is not easy. There is, first, the danger that it may increase soil erosion. The present lay-out of the village strips, which often run straight up the maximum slope of a hill-side, in any case promotes erosion, and if tractor cultivation were introduced, without a new alignment of the land, the dangers would be still greater. Mr Eyre, of the Palestine Department of Agriculture, considers that the tractor in these countries can be a lethal weapon if proper safeguards against erosion are not enforced and compulsory measures taken, such as ploughing on the contour.

Second, the introduction of machinery, under present conditions, does not give a larger income to the cultivators; on the contrary the gain is swallowed up in higher rents. To quote one instance from many: in the Gaza district of Palestine a sheikh landowner with some 5,000 acres of land purchased a tractor and hired it to his tenants, raising their rent from the normal one-third of the produce to one-half, and charging £P8 per acre for the machines in addition. To prevent such practices, the Government has since fixed the charge at £P1 (300 millicemes) per acre, and fixed rents at the customary one-third, but in the other Middle East countries landowners have not been prevented by the Governments from fixing high charges for tractor use.

Thus if there is to be a general introduction of mechanization—and no doubt the war-time development in this direction will continue—the use of machines must be linked with the enforcement of a general code of practices to control soil erosion, such as compulsory ploughing on the contour, which usually means a re-grouping of holdings. Other erosion control measures, not connected with mechanization, are much needed, among them afforestation of grazing land and compulsory tethering of goats.

At the same time, the benefits of the use of the machine must be secured to the cultivators through village ownership, or through government ownership with fixed charges for use. This is essential, if general measures against erosion are to be enforced, since soil conservation measures inevitably run contrary to the fellah's immediate interests and are felt as the greatest hardship by the poorest. For instance, to make the tethering of goats compulsory means more work and more fodder, and the small cultivator cannot accept such a restriction,

unless he can at the same time gain a bigger and steadier income through membership of a village tractor co-operative, which will give him the chance of cultivating more land and cultivating it better.

To achieve these essential technical and economic advances, therefore, there is needed, on the one hand a new type of village organization, owning and operating machinery with the object of giving members a larger income, and on the other a government service of farm experts who would enforce a new soil conservation code and supervise the use of this machinery in conformity with the code.

Obviously such a development will not be easy. Because mixed farming and livestock production is not feasible in arid climates, the Middle East cultivator has to bridge an enormous historical gulf; he has to jump from the twelfth century to the twentieth, without the gradual stages of farming progress of the eighteenth and nineteenth centuries as a transition. It is a bigger step forward even than the Russian peasant has taken in our own time.

The difficulty is that the experts do not offer any easy or immediate prospect of increase in the productivity of the soil. There are a number of ways of advance which must be tackled simultaneously; many of them have not been fully investigated and to some questions there is at present no answer. Much research is needed, and the application of its results is needed too. Here the Jewish farms with their laboratory-tested methods are an example, which must be followed in a less expensive way, better adjusted to the real possibilities of village life. If the 'young effendis' were more interested in agricultural science than in literature and law, they might become a vehicle for the dissemination of modern ideas about farming. Without some great national movement to spread the ideas and methods of agricultural improvement, the fellah will never bridge the gap which divides him from the modern world.

To initiate such development would of course be easiest in new areas, such as the Jezira in Syria, where it would be comparatively easy to settle large groups with family holdings of similar size, and to secure the ownership of the land to the Government, transferring it to cultivators as they brought it into cultivation.

But it must be recognized that at best the scope of change in dry farming is limited, and except so far as a big increase in farm sizes is possible, it will not effect any important improvement in the cultivator's income. The only way of obtaining a really large increase in farm output and income is of course by extension of the area under irrigation, since by means of irrigation it is possible to double or treble the output per acre, to vary cropping, and, most important of all, to stabilize crop yields.

In each country there are possibilities of increasing the area irrigated. In Egypt, the conversion of the basin land is already in progress which will increase the intensity of cultivation on about one million acres. Land reclamation can bring about another million acres under cultivation, but is proceeding far too slowly.

In Palestine there are small areas which could be irrigated profitably now, for instance, the drainage of the Huleh swamps; but the really large scale Jordan Valley development, to bring between 500,000 and a million acres into cultivation, will require large expenditure estimated from £60 to £97 million, and will depend on political rather than economic considerations. In Syria and Lebanon, there were a number of small-scale developments during the recent war, which increased the irrigated area by about one-third. The total area irrigated now is about 500,000 acres, and this could be much increased; by how much will be estimated by the survey now being undertaken by a British firm on behalf of the Syrian Government.

It is, however, in Iraq that the possibilities of adding to the area are the greatest. The schemes which are now being investigated by an expert commission will, it may be supposed, add some 2-4 million acres to the cultivated area. These include schemes for flood control, including the Behkme dam on the Greater Zab, the extension of the Habbaniya project, and the revival of an old scheme to irrigate the Wadi Tharthar by flow irrigation, without pumping. The costs of these schemes are low, as compared with the estimates for the Jordan Valley development and will bring far larger areas under cultivation.

Here there are undoubtedly great prospects for advance. But it is important to emphasize the obstacles to an extension of irrigation, both technical and social. For instance, there is the great

technical difficulty of the salinity of the soil. This has proved a great drawback in Palestine, and has only been partially overcome on the Jewish farms by selection of crops which are less sensitive to salinity. It is equally a danger in Syria and Iraq; the experience of the Khuzistan scheme in Persia, an apparently promising war-time project, is a sufficient warning of the need for taking this factor fully into account.¹

Further, it will be necessary to give great weight to social factors and to attract labour by introducing new forms of tenure. For this scale of development, government ownership with leasehold tenancies for cultivators, convertible at a later stage to freehold, would appear to be the only possible form of control. Water would necessarily remain the property of the Government. As an appropriate form for such settlement, Dr Keen has suggested the tripartite type of organization as used in the Sudan schemes, in which marketing and financing of the crop are in the hands of a commercial company working under government contract, which fixes the terms of the cultivators' leases.² But it seems unlikely that such schemes could serve as a general model for development, because they depend on the existence of a special market, and are commercially profitable only because the company can finance sales to this market and organize production in relation to it. The Sudan schemes depend for their success on the profitability of a cash crop, in this case cotton, which enables them to provide their tenants with better conditions, and leaves a surplus for 'welfare' and other amenities; the actual financial control of the company and the profits remain in foreign hands, while the crop is sold in foreign markets. Similarly the Jewish colonies depend on the sale of their produce in a monopoly market, the Jewish urban community, and their finances are not dependent on the results of cash sales. This type of development could not be extended to cover the whole of subsistence crop production, in which financial returns will be low and where the market depends on the general economic level of the community.

To summarize then, for the region covered by this study there appear to be three main lines of advance:

¹ See G. L. Bailey, 'Some Difficulties in Land Reclamation: An Example from Southern Persia', *Proceedings of the Conference on Middle East Agricultural Development*, pp. 51-61.

² op. cit., p. 36.

1. For dry farming, the introduction of mechanization, through village co-operative settlements owning the machinery under government supervision;
2. Connected with this, the introduction of soil conservation policies for terracing, ploughing on the contour, and control of grazing;
3. State controlled and operated irrigation schemes, with government ownership of water-rights.

Such developments as these will mean fundamental changes in the present social system. They will involve, not the abolition of individual ownership, but its strengthening through forms of group ownership of machinery and State ownership of water which will guarantee a minimum subsistence level and act as a safeguard against debt. The experience of the mandatory Governments in Palestine, Iraq, and Syria has shown that it is useless to try to establish individual ownership of land simply by granting legal title to land. The idea behind their land policy, so far as it was effective at all, was to break down the old communal forms of ownership and secure individual title to land. But individual legal title has not succeeded in establishing an independent peasant class; without capital, the small cultivator cannot become a farmer. Peasant indebtedness reflects not merely shortage of capital, but the impossibility of investing capital on an individual scale. The debts are incurred for consumption, to tide over crop failures, and it will not be possible to break the habit of debt unless the whole farm economy is more stable, unless peasants can farm larger areas, and accumulate reserves against bad years, and unless there are channels for investment.

Chapter IX

THE NEED FOR AGRICULTURAL PLANNING

THE land question in the Middle East region, as covered by this study, is evidently far wider in scope than the reform of the prevalent types of farm organization.

It is, in reality, the question of land utilization, which covers the whole economic development of the region. Egypt and Palestine suffer from agricultural poverty as a result of pressure of population on the land; and even the maximum possible development of their land resources will not suffice to support their rural population if it continues to increase at its present rate.

Egypt's problem is most acute, because it already has a large surplus of some 2 million workers on the land. One remedy for Egypt's poverty might be found in industrialization, but a precondition of industrial development is a redistribution of income, to raise the purchasing power of the rural population. Migration to other territories will also be needed if this surplus is to be quickly absorbed, but although there is room elsewhere in the Middle East, particularly in Iraq, the natural increase of local population must be allowed for. In any case, if Egypt's population continues to expand at its present rate, it will outrun the agricultural resources of the whole Middle East.

Palestine's problem of poverty is less acute; but it is serious because pressure on the land tends to increase soil erosion. There are areas of waste land which could be made cultivable by large-scale irrigation, but even the maximum investment, on a scale outside any normal economic considerations, is likely to add only at most one million acres to the cultivated area, which would just suffice to support the prospective increase in the Arab rural population in the next twenty-five years. But investment of a non-economic kind will certainly not be undertaken for the purpose of supporting the growth of the Arab population; the most that the Arab villagers can hope for is some share of the additional land which irrigation may make available. To find means of subsistence for the prospective increase of Arab population it will be necessary to look either to

industry or to agricultural expansion in adjacent territories, most obviously Syria.

In Syria and Iraq there are large areas which could be added to the area already cultivated: these are now the subject of study by development commissions or private firms. In Syria the outlook for increasing cultivation is particularly favourable, because there are some one and a quarter million acres in the rain-fed Jezira region which could be taken under cultivation without the heavy capital expenditure which irrigation involves. There are also some areas, difficult to estimate in total extent, which could be developed by irrigation. Syria's poverty problem at present is due not to shortage of land, but to the fact that the peasants do not own enough land and cannot cultivate it well enough to earn a subsistence minimum. Before there can be any large-scale development of agriculture and new settlement on the land, it is necessary to evolve new forms of land holding, based on the joint ownership of machinery in village units, to enable larger areas to be cultivated per worker and so achieve a larger gross income per family.

In Iraq there are some three or four million acres in the irrigated zone which can be brought under cultivation if the irrigation schemes now contemplated are put into effect. To prevent the immense wastage of land resources which shifting cultivation entails, drainage schemes are also needed. Expansion on this scale will necessitate a general scheme for labour immigration from other countries and within Iraq itself.

Indeed, the population pressure in some countries, and the possibilities of development in others, really necessitate the working out of a policy for agricultural expansion between the different countries to develop their resources in connection with labour migration from the over-populated to the under-populated. This would require joint planning of employment and settlement on the new projects: it would also require joint planning of the water resources where these overlap.

As we have seen, in Egypt and Palestine there is also an overriding need for the development of industrial production; and both in Syria and Iraq the development of new industries could probably be linked with electrical power production from new water projects. To carry through these different lines of development will need the operation of a general economic plan

to secure the expansion of food output, and of the internal market for industrial products.

It is important to stress that this planning is needed in the interests of the populations of these territories, and to see the need of better living standards from their own standpoint. It is all too easy to consider development in terms of our own economy, and to look to the Middle East to provide opportunities of settlement for European immigrants; or to recommend forms of organization which would be efficient methods of producing the raw materials or food supplies needed by more developed industrial economies. All the large agricultural ventures in this part of the world have been set up for one or the other of these purposes, and it is for that reason that they cannot be taken as models for farm organization in general in these countries. What is needed is not to find forms of farm organization which will produce more for export, but to raise the standard of living in general and create an internal market.

It is necessary, therefore, not to regard Middle East agriculture in general as likely to offer a profitable field for international investment. No amount of technical change will make the conditions of production in this region profitable by comparison with other farming areas of the world, because no technical change can make up for lack of water. The areas to be developed, though significant in relation to the congestion of the Nile Valley or to Palestine's eroding soil, are not especially fertile or favourably situated, and expansion there is not likely to bring in a high rate of return on capital. Planning for the Middle East makes sense in terms of soil conservation or living standards, but hardly in terms of dividends.

But at present there are very serious obstacles to the planning and development of agricultural resources. One of these is the nature of the political system. A planned development would require a great extension of State action, and the development of new kinds of State services: it requires in fact a new conception of State policy altogether. In present conditions, as this study has shown, the administrative system is scarcely capable of putting such policies into effect. It is only a short time since these States, with the exception of Palestine, attained political independence, and the Governments still represent only a small section of the community. Everywhere, except

in Palestine, the landlords are the predominant influence: in Syria, for instance, out of 109 members of the 1946 Parliament whose occupation was known, 96 were landowners, 7 merchants, 4 lawyers, one a landlord and merchant, and one a contractor. Present political trends with all their emphasis on nationalism tend to obscure the need for social policies, and the rising generation of the young effendis has not as yet made economic development part of the content of its nationalism. Until this happens, and until the need for social change is realized, it is difficult to put even small changes into effect. As we have seen, in some countries, particularly Palestine and Syria, the mandatory Governments tried to effect small and piecemeal improvement, such as co-operatives and land banks, but such changes remain ineffective because they are not geared into a general programme for advance, and also because there is no gradual long period rise in the standard of living, which would promote social evolution of the kind which in the West is regarded as a natural process. The Middle East is indeed a challenge to all such evolutionary theories of social progress: 'Fabianism withers under a vertical sun.'

For the obstacle to progress is not only the lack of a developed political system, but the whole atmosphere. Fatalism, conservatism, and improvidence characterize landlord and cultivator alike. This fatalism is in part a reflection of natural conditions so adverse that they are accepted as controlling influences. The floods of the great rivers in Egypt and Iraq; the uncertainty of rain in Palestine and Syria; locusts, malaria: fate certainly seems to hold all the cards, and to have produced indifference to change, and scepticism as to the hope of controlling environment. It is easy to feel that without a change in this mental attitude there can be no change in the direction of economic and social process; difficult to see how anything can be changed without changing everything; and difficult to see where the motive power for economic planning will arise, in this form of society.

Yet it must not be forgotten that this attitude is also in part induced by social influences. In fact natural conditions are not the only determining factors; the land resources of the Middle East are already subject to a high degree of control, both in Egypt where the whole farm system is artificial, and in Iraq

where pump irrigation is expanding. Where there is a prospect of a quick return the landlords show no indifference to progress.

The chief obstacle to the improvement in the position of the peasants is that it is in the interests of the landlords not to disturb all the traditional and natural influences which make for fatalism. Dr Allen quotes the story of an educational inspector in a large rural district of a Middle East country, who was successful in arousing a desire for education in the peasants of the area to such an extent that they not only expressed their desire for schools, but also expressed their willingness to co-operate in meeting the cost. But the local landowners who controlled the villages objected; they put their case to the Minister of Education and before long, the inspector was moved to another district.¹ Thus ignorance and fatalism are not an inevitable part of the rural scene, but not until a stronger impetus towards change comes from the peoples themselves will it be practicable to plan agricultural development.

The level of political development is therefore the great obstacle to economic reform, including land tenure and land utilization; and still more to economic planning. What is needed is a general movement to raise the level of rural welfare, to strengthen the half-conscious desire of the peasantry for better education and better health, and to create types of social organizations to promote investment, in development to increase farm incomes and the cultivators' share in them.

Until such a movement gains strength, and as long as the distribution of political power and income remains as it is, it is unlikely that technical and economic changes which the impact of the West has caused in recent years will bring benefits to the farming communities of these territories. As we have seen, the increase in mechanization during the war has not brought a corresponding benefit to the fellah, and under present conditions the trend towards mechanization may well lead to further exploitation.

In addition to the political system, there is a general economic limiting factor, affecting the development of agriculture, the lack of capital in the region as a whole. Peasant poverty has been

¹ H. B. Allen, *Rural Education and Welfare in the Middle East* (H.M.S.O., 1946) p. 6.

shown in every country surveyed to be due to the chronic indebtedness of the peasants. It is this general shortage of capital which enables the landlord moneylender class to charge rates of interest up to 30 per cent, a rate which no farmer in the world can pay, let alone the fellah of the Middle East. It is not simply because the landlords are oppressive that these extortionate terms are exacted; they reflect the general poverty of the whole region, and the uncertainty of natural conditions. So long as this general shortage continues, it is impossible to break the burden of peasant indebtedness; debts can only be cleared off and rates of interests can only be reduced, if larger supplies of capital become available to the economy as a whole.

This of course can only occur as a result of a fundamental change in the general economic position of the Middle East in relation to the rest of the world. Now, as a result of war-time development, great changes have occurred, which might, if properly controlled and guided, serve to end the capital shortage.

First, the Middle East has become a creditor region. The enormous war-time spending by Britain in Middle East countries has produced large sterling balances in their favour. Egypt and the Sudan have together a sterling balance of £470 million, Iraq of £100 million and Palestine of £150 million; in nominal value these credits represent a figure at least twice that of the pre-war national income of each country. These balances are now in process of settlement; their value is large enough to finance any of the large-scale developments which are contemplated. Unfortunately this expenditure was financed largely by currency inflation, and as a result there have been large rises in the cost of living ranging from 300 per cent in Egypt to 600 per cent in Syria. Currency inflation has been profitable to property-owners, and has injured wage-earners and landless peasants, whose incomes have not kept pace with the price rise. In Egypt the greater part of the farm population has suffered a serious fall in the standard of living and the fellah has borne his share of the cost of war in starvation. In Iraq, landlords have profited by rising prices to buy tractors and pumps, while the fellah has had the negative benefit of being freed from debt, so long as high prices last. In Syria, he has not gained in this way because debts have been incurred in gold values, and as grain prices have risen

less than the general level (owing to government control), the peasant grain-seller finds the burden of debt increased; while the peasant grain-buyer finds that its price has risen more than his wages. Only in Palestine does it appear that the Arab cultivators have gained, on the one hand by the better opportunities of urban employment and on the other by a rise in food prices which has freed them from debt. All in all, the Middle East peasant has borne a vastly disproportionate share of the cost of the war. This loss could be made good if the sterling balances when they are settled could be repaid in schemes for development to give the cultivators the benefit in better employment and better conditions of cultivation. If a similar policy of forced lending had been carried through by the Governments to finance planned development it would have been of great benefit; but as it is, it is the well-to-do who have gained most, and they appear likely to continue to do so.

Second, the other big factor which is likely to change the economic outlook in the Middle East is the forthcoming great expansion of oil production. As a result mainly of new concessions granted since 1943, investment in Middle Eastern oil is likely to increase very fast. In the eight years 1938-46 the oil output from the Middle East territories doubled, from 16 million tons to 32 million tons. By 1951 it is anticipated that the total output of oil will reach 77 million tons, much of the increase coming from Saudi Arabia and Kuwait, as follows:

	OIL OUTPUT			
	(ooo tons)	1938	1946	1951 (estimated)
Iran...	..	10,359	19,000	31,000
Saudi Arabia	..	70	7,000	20,000
Iraq..	..	4,364	4,470	13,000
Kuwait	..	—	800	10,000
Bahrein	..	1,137	1,000	1,000
Qatar	..	—	—	2,000
TOTAL	..	15,930	32,270	77,000

Source: *Petroleum Press Service* (London), February 1947, p. 28.

The rights of exploitation of these supplies are held by a few foreign companies, some of which are new in this area. Most of the increase will come from new oil fields which have hitherto been unexploited. The most important of these are in Bahrein

and Saudi Arabia where exclusive rights are owned by four American companies, the Standard Oil Company of California, Standard Oil of New Jersey, Socony, and the Texas Corporation; it is for these fields that a new 1,000 mile pipe line from the Gulf to the Mediterranean is proposed, to cost some £30-£40 million. Another new pipe line, to connect Anglo-Iranian production at Abadan with the Mediterranean is also under consideration.

Under present conditions, it seems unlikely that this new investment will be related to the general economic development of the Middle East area, for two reasons. One is that most of the new money which investment brings in the form of royalties will go into countries which have almost no other resources, the sparsely populated desert kingdom of Saudi Arabia, and the tiny area of Kuwait, virtually without agriculture or industry. Much of it will doubtless be spent on direct personal consumption, and it is unlikely to find its way into long-term investment in the neighbouring countries with large populations and possibilities of agricultural development. The political divisions between the territories of the Middle East thus stand in the way of long-term development; if they were economically and politically more unified, the benefits accruing to the rulers of Saudi Arabia and the sheikhdoms might be spread more evenly, and lead to a long-term rise in living standards. This presupposes, however, a progressive policy on the part of the Governments concerned.

Another reason why the expansion of oil production is not likely to stimulate general development is that since the companies are foreign all their profits will presumably be invested outside the Middle East territories. The danger is that the main mineral resource of the territories will be drained away, without contributing towards an increase in the supply of capital and the long-term investment needed to provide for a general rise in the standard of living. It is estimated that the oil reserves may be exhausted in the course of two generations; by that time local populations, more than double their present size, will have sunk into irremediable poverty unless agriculture has been made more productive, and other branches of industry have been built up. If the expansion of oil production is to promote a balanced development and relieve the general shortage of capital, it is necessary that a part of the profits from oil as well as part of the royalties accruing to the local Governments should be re-invested

in the development of agriculture, where the return is necessarily low and long-term, and in consumption goods industries, which could expand if the general standard of living were rising.

To secure such a general expansion, as part of the terms of a governmental agreement covering the relations of the oil companies with each other and with the Middle East Governments, was the object of a proposal made by the British Government in 1945; this recommended the setting up of a bank for general economic development, covering all the territories concerned, to which the companies would have assigned a proportion of their profits, for investment in long-term development projects. A scheme of this kind would be the only way of securing that the development of the chief resource of the territories would directly promote a general rise in the standard of living. Unfortunately this proposal was not carried out because the general Anglo-American oil agreement, of which it was a part, was not ratified.¹

However, because of the conflict of international interests in this region, the idea of some form of international agency to promote investment and economic development in the Middle East is gaining ground, with titles such as a Middle East Reconstruction Corporation, or a Euphrates Valley Authority. Behind these ideas lies the same objective of making good the loss which the development of oil resources may entail.

The object of this study has been to suggest that the success of such policies will depend entirely on whether they can be linked with a general impetus among the peoples concerned towards better living standards, and all that that implies, and whether they can strengthen this impetus against the forces which oppose such development. For money alone will not bring social progress; as we have seen, direct foreign investment does not automatically bring better living standards. Indeed, the difficulty is that foreign lending, if linked with any intervention in social institutions, may cause a strengthening of nationalist policies against such intervention, and a hardening of the opposition to resist such changes. Thus foreign investment in such projects as a Euphrates Valley Authority might result simply in contributing towards the incomes and power of the landlords,

¹ See 'Oil Politics', *The Economist*, 2 January 1947, and 'The Oil Pact', *Manchester Guardian*, 2 January 1947.

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and so might not initiate any of the economic changes on which progress depends. On the contrary, it might easily mobilize against itself such progressive groups as already exist among the younger generation.

Could such a policy be based on genuine United Nations co-operation? If it were, it might be easier to divest it of the appearance of foreign intervention and to link it with the progressive forces inside the countries without raising reaction against itself. Agencies such as the Food and Agriculture Organization or the International Labour Office, of which these countries are members, might work out schemes for raising standards of nutrition and health, and minimum income standards for cultivators working on development projects.

But these are speculations, and it is necessary to refer to them only to show how wide are the international implications of progress in the Middle East. At present the fellah's horizon is bounded by the pipe line and the money-lender, and not until the connection between them is broken can progress for him become a reality.

BIBLIOGRAPHY

Allen, H. B.: *Rural Education and Welfare in the Middle East* (H.M. Stationery Office, 1946)

Anhoury, J.: *Les Grandes Lignes de l'Economie de l'Egypte* (Cairo, Government Press, 1940)

Bailey, G. L.: 'Some Difficulties in Land Reclamation: An Example from Southern Persia', *Proceedings of the Conference on Middle East Agricultural Development* (Cairo, 1944)

Bonné, A.: 'Conditions and Problems in the Agriculture of Iraq', *Bulletin of Agricultural Economics and Sociology* (International Institute of Agriculture, Rome), February 1934

Bonné, A.: *The Economic Development of the Middle East* (London, Kegan Paul, 1945)

Cleland, W.: 'A Population Plan for Egypt', *L'Egypte Contemporaine* (La Société Royale d'Economie Politique, de Statistique et de Legislation, Cairo), May 1939

Dowson, Sir Ernest: *An Inquiry into Land Tenure and Related Questions* (Iraq) (Letchworth Garden City Press for the Iraqi Government, 1932)

Haider, Salih: 'Land Problems of Iraq' (London University Ph.D. thesis, 1942)

Haider, Salih: 'The Problem of the Land in Iraq' (Unpublished MS., 1944)

Hassan, Ali: 'The Importance of Improvement of Standards of Nutrition in the Middle East', *Proceedings of the Conference on Middle East Agricultural Development*

Hope Simpson, Sir John: *Palestine. Report on Immigration, Land Settlement and Development*, Cmd. 3686 (H.M. Stationery Office, 1930)

Ionides, M. G.: *Report on the Water Resources of Transjordan and their Development* (London, Crown Agents for the Colonies, 1940)

Ionides, M. G.: 'Irrigation in Palestine', *The World To-Day* (Royal Institute of International Affairs, London), April 1947

Ireland, P. W.: *Iraq, A Study in Political Development* (London, Jonathan Cape, 1937)

Issawi, C.: *Egypt; An Economic and Social Analysis* (London, Oxford University Press for the Royal Institute of International Affairs, 1947)

Johnson, W. J. and Crosbie, R. E. H.: *Report on the Economic Conditions of Agriculturists in Palestine* (Jerusalem, 1932)

Keen, B. A.: *The Agricultural Development of the Middle East* (H.M. Stationery Office, 1946)

Khlat, Paul J.: 'Report on Land Tenure in the Village of Kfer-Sa'ab (North Lebanon)' (Unpublished MS. prepared for the Middle East Supply Centre, December 1944)

BIBLIOGRAPHY

Khlat, Paul J.: 'Report on Land Tenure in Ashrafie Souhnaya (Damascus District)' (Unpublished MS. prepared for M.E.S.C., October 1944)
 Khlat, Paul J.: 'Report on Land Tenure in the Estate of Misherfe (Homs-Hama Plain)' (Unpublished MS. prepared for M.E.S.C., November 1944)
 Kolarov, V. P. and Gorov, M. P., *Agrarnu Vopros i Krestyanskoe Dvizhenie*, vol. 4 (Moscow, 1937)
 Lambert, M.A.: 'Les Salariés dans l'Entreprise agricole Egyptienne', *Egypte Contemporaine*, March 1943
 Latron, A.: *La Vie rurale en Syrie et au Liban* (Beirut, L'Institut Français de Damas, 1936)
 Loftus, P. J.: *The National Income of Palestine, 1944* (Palestine Government Press, 1945)
 Lowdermilk, W. C.: *Palestine, Land of Promise* (London, Gollancz, 1944)
 Macdonald, A. D.: *Euphrates Exile* (London, Bell, 1936)
 Mazloum, Soubhi: 'Le Problème de l'Eau au Liban et en Syrie', *L'Agriculture, Richesse Nationale* (Beirut, 1942)
 Myers, H. E.: 'Dry Land Farming Practices', *Proceedings of the Conference on Middle East Agricultural Development*
 Nathan, R. R., Gass, O., and Creamer, D.: *Palestine: Problem and Promise* (Washington, Public Affairs Press 1946)
 Sale, G. N.: 'Afforestation and Soil Conservation', *Journal of the Middle East Society* (Jerusalem), October-December 1946
 Selim, Hussein Kamel: *Twenty Years of Agricultural Development in Egypt 1919-39* (Cairo, Government Press, 1940)
 Sousa, Ahmed: *Iraq Irrigation Handbook, Part I: The Euphrates* (Baghdad, Directorate General of Irrigation, 1944)
 Thoumin, R.: *Géographie humaine de la Syrie centrale* (Paris, 1936)
 Volcani, I. Elazari: *The Fellah's Farm* (Tel-Aviv, The Jewish Agency for Palestine, 1930)
 Volcani, I. Elazari: *Planned Mixed Farming* (Rehovot, Agricultural Research Station of the Jewish Agency for Palestine, 1938)
 Walpole, G. F.: 'Land Settlement in Transjordan', *Proceedings of the Conference on Middle East Agricultural Development*
 Weulersse, Jacques: *Paysans de Syrie et du Proche-Orient* (Paris, Gallimard, 1946)
 Willcocks, Sir William: *The Irrigation of Mesopotamia*, 2nd edition (London, Spon, 1917)

Palestine Royal Commission Report, Cmd. 5479 (H.M. Stationery Office 1937)
Palestine Royal Commission, Memoranda prepared by the Government of Palestine, Colonial No. 133 (H.M. Stationery Office, 1937)
Palestine Partition Commission Report, Cmd. 5854 (H.M. Stationery Office, 1938)
Report of the Anglo-American Committee of Enquiry regarding the problems of European Jewry, Cmd. 6808 (H.M. Stationery Office, 1946)

BIBLIOGRAPHY

A Survey of Palestine, prepared in December 1945 and January 1946
for the information of the Anglo-American Committee of Inquiry,
2 vols. (Jerusalem, 1946)
Palestine General Monthly Bulletin of Current Statistics
Fiscal Survey of Transjordan

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